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Written Comments

Received during Review of

the Draft Environmental Statement

and Responses

BLM Library
Denver Federal Center
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TABLE OF CONTENTS

Letter No.	Letter Date	To/From	Page
1	1/25/77	To: Acting Commissioner From: Advisory Council	1
2	2/01/77	To: Acting Commissioner From: State Planning Coordinator Nevada Governor's Office of Planning Coordination	4
3	2/02/77	To: Regional Commissioner From: Flood Control District of Maricopa County	6
4	2/09/77	To: Regional Director From: Native American Rights Fund	10
5	2/09/77	To: Regional Director From: Maricopa County Highway Dept.	12
6	2/11/77	To: Regional Director From: Arizona Game & Fish Dept.	14
7	2/16/77	To: Acting Commissioner From: U.S. Geological Survey	20
8	2/23/77	To: Acting Commissioner From: U.S. Fish and Wildlife Service	26
9	2/23/77	To: Regional Director From: Maricopa County Planning Dept.	43
10	2/24/77	To: Acting Commissioner From: U.S. Dept. of Transportation	52
11	2/24/77	To: Regional Director From: Governor of Wyoming including the following letters: From: Geological Survey of Wyoming	54
12	2/25/77	To: Acting Commissioner From: U.S. Bureau of Outdoor Recreation	57
13	2/28/77	To: Acting Commissioner From: U.S. Bureau of Mines	61
14	2/28/77	To: Regional Director From: New Mexico Environmental Improvement Agency including the following letters: From: Health and Social Services Dept.	64

TABLE OF CONTENTS (continued)

Letter No.	Letter Date	To/From	Page
15	3/01/77	To: Acting Commissioner From: U.S. Army Corps of Engineers	69
16	3/01/77	To: Regional Director From: New Mexico State Planning Office	71
17	3/02/77	To: Regional Director From: Arizona Dept. of Transportation	75
18	3/07/77	To: Regional Director From: HEW including the following letters: From: HEW, Asst. Secy-Designate for Human Development	85
19	3/18/77	To: Regional Director From: U.S. Soil Conservation Commission	94
20	3/24/77	To: Regional Director From: Interstate Commerce Commission	100
21	3/25/77	To: Acting Commissioner From: Federal Power Commission, Bureau of Power	107
22	3/31/77	To: Acting Commissioner From: National Park Service	112
23	5/02/77	To: Commissioner From: National Park Service	120
24	4/04/77	To: Regional Director From: State of Arizona including the following letters: From: Northern Arizona Council of Governments From: Dept. of Health Services, Phoenix, Arizona From: Maricopa Assn. of Governments From: Arizona Power Authority From: Energy Programs, Phoenix From: Arizona State Parks From: Department of Economic Security From: Arizona Bureau of Mines, Tucson From: Indian Affairs Commission From: Department of Public Safety From: SEAGO From: Arizona State Museum From: Central Arizona Association of Governments	

TABLE OF CONTENTS (continued)

Letter No.	Letter Date	To/From	Page
		From: State Liaison Officer, AORCC From: Division of Emergency Services From: Arizona Atomic Energy Commission From: Dept. of Anthropology, ASU From: Arizona Commission of Agriculture and Horticulture From: Arizona Game & Fish Department From: Arizona Mining Association	124
25	4/04/77	To: Regional Director From: State Land Department	159
26	4/12/77	To: Acting Commissioner From: Rural Electrification Administration Department of Agriculture	164
27	5/26/77	To: Regional Director From: U.S. Environmental Protection Agency	172

TABLE OF CONTENTS

	Page
Public Hearings, St. Johns, Arizona	178
Public Hearings, Kearny, Arizona	189
Public Hearings, Phoenix, Arizona	192

PROPERTY OF
BUREAU OF RECLAMATION

Advisory Council on
Historic Preservation
1522 K Street N.W.
Washington, D.C. 20005

January 25, 1977

Mr. Clifford I. Barrett
Acting Commissioner
Bureau of Reclamation
U.S. Department of the Interior
Washington, D. C. 20240

Dear Mr. Barrett:

This is in response to your request of January 14, 1977 for comments on the draft environmental statement for the proposed Coronado Project, Maricopa County, Arizona. Pursuant to its responsibilities under Section 102(2)(C) of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation has determined that while you have discussed the historical, architectural and archeological aspects related to the undertaking, the Advisory Council needs additional information to adequately evaluate the effects on these cultural resources. Please furnish additional data indicating:

I. Compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f, as amended, 90 Stat. 1320). The Council must have evidence that the most recent listing of the National Register of Historic Places has been consulted (see Federal Register, February 10, 1976 and monthly supplements each first Tuesday thereafter) and that either of the following conditions is satisfied:

A. If no property included in or eligible for inclusion in the National Register is affected by the project a section detailing this determination must appear in the statement.

B. If a property included in or eligible for inclusion in the National Register is affected by the project, the statement must contain an account of steps taken in compliance with Section 106, as amended, and a comprehensive discussion of the contemplated effects on the property. (Procedures for compliance with Section 106 are detailed in the Federal Register of January 25, 1974.)

The Council is an independent unit of the Executive Branch of the Federal Government charged by the Act of October 15, 1966 to advise the President and Congress in the field of Historic Preservation.

II. Contact with the State Historic Preservation Officer.

The procedures for compliance with Section 106, as amended, of the National Historic Preservation Act of 1966 and Executive Order 11593 require the Federal agency to demonstrate consultation with the appropriate State Historic Preservation Officer. The State Historic Preservation Officer for Arizona is Ms. Dorothy Hall, State Parks Board, 1688 West Adams, Phoenix, Arizona 85007.

Should you have any questions or require any additional assistance, please contact Michael H. Bureman of the Council's Denver staff at P. O. Box 25085, Denver, Colorado 80225, telephone number (303) 234-4946, an FTS number.

Sincerely yours,

Louis S. Wall
Assistant Director, Office
of Review and Compliance

Reply to Comments by
Advisory Council on
Historic Preservation

Letter dated January 25, 1977

1. Comment:

I. Compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f, as amended, 90 Stat. 1320). The Council must have evidence that the most recent listing of the National Register of Historic Places has been consulted (see Federal Register, February 10, 1976 and monthly supplements each Tuesday thereafter) and that either of the following conditions is satisfied:

A. If no property included in or eligible for inclusion in the National Register is affected by the project a section detailing this determination must appear in the statement.

B. If a property included in or eligible for inclusion in the National Register is affected by the project, the statement must contain an account of steps taken in compliance with Section 106, as amended, and a comprehensive discussion of the contemplated effects on the property. (Procedures for compliance with Section 106 are detailed in the Federal Register of January 25, 1974.)

Response:

In preparing the final environmental statement, the list contained in the February 1, 1977 issue of the Federal Register was consulted with a finding that no present sites will be affected.

If there are any sites located on federal lands that are found to be eligible for the National Register, then appropriate determiniation of affect will be made in accordance with the guidelines established under 36CFR800. However, it should be pointed out that the SRP is not obligated to evaluate sites found on private lands under these guidelines.

2. Comment:

II. Contact with the State Historic Preservation Officer.

The procedures for compliance with Section 106, as amended, of the National Historic Preservation Act of 1966 and Executive Order 11593 require the Federal agency to demonstrate consultation with the appropriate State Historic Preservation Officer. The State Historic Preservation Officer for Arizona is Ms. Dorothy Hall, State Parks Board, 1688 West Adams, Phoenix, Arizona 85007.

Response:

Within the constraints identified under comment No. 1, appropriate consultation with the SHPO will be maintained.

STATE OF NEVADA
GOVERNOR'S OFFICE OF PLANNING COORDINATION
CAPITOL BUILDING, ROOM 45
CAPITOL COMPLEX
CARSON CITY, NEVADA 89710
(702) 885-4865

February 1, 1977

Mr. Manuel Lopez, Jr.
Regional Director
United States Department of the Interior
Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 427
Boulder City, Nevada 89005

RE: SAI NV #77800023 - Draft EIS - Coronado Project

Dear Mr. Lopez:

Thank you for the opportunity to review the above mentioned project.

The State Clearinghouse has processed the proposal and has no comment. Based on the information contained therein and the responses of interested parties, the proposed project is, as of this date, found not to be in conflict with the State's plans, goals or objectives.

Sincerely,

Bruce D. Arkell
State Planning Coordinator

BDA/jh

Reply To Comments By
State of Nevada
Governor's Office of Planning Coordination

Letter dated February 1, 1977

No replies are needed to this letter.

FLOOD CONTROL DISTRICT of Maricopa County

3335 West Durango Street • Phoenix, Arizona 85009 • Telephone (602) 262-1501

February 2, 1977

Mr. Manual Lopez, Jr.
Bureau of Reclamation
Post Office Box 427
Boulder City, Nevada 89005

Re: Draft Environmental Statement on the Coronado ~~Project~~

Dear Mr. Lopez:

We have reviewed your Draft Environmental Statement on the Coronado Project and have the following comments:

The 500 KV Transmission Line to Kyrene will cross the Powerline Flood Retarding Structure within the northeast quarter of Section 8, Township 1 South, Range 8 East. This Flood Retarding Structure is operated and maintained by us. The height of the structure at the point of crossing is approximately 30 feet above the existing natural ground. The proposed 500 KV Transmission structure, which shows an average height of 129 feet, will clear our structure. The average span length of 1650 feet will allow you to place your Transmission structure so that there should be no inundation problems from flood waters held within our structure. From the preliminary information as to the proposed location of the Transmission structure, there appears to be no conflict, but we would expect to review further preliminary and final plans of the Transmission line within our Flood Retarding Structure area.

On January 28, 1977, we received from the State Land Department notification that they have received Application 16-42304 described as the S½ S½ N½ of Section 8, Township 1 South, Range 8 East. The purpose of the Application was listed as follows: "Erecting, constructing, reconstructing, replacing, repairing, maintaining and using a line of poles, or steel towers and wires or cables suspended thereon and supported thereby, and underground electrical conduits, manholes, transformer pads and vaults for the transmission and distribution of electricity, and for all other purposes connected therewith, together with the right of ingress thereto and egress therefrom, to and along said right of way." The area as indicated

from this Application appears to be approximately 1000 feet south of your Transmission Line as shown on the Silver King to Goldfield Transmission, Figure I-20. If this Application 16-42304 was made by your office for the above mentioned Transmission Line, the purposes as listed and the location as shown could conflict with our Dam, emergency spillway, diversion, dike and access road.

Sincerely,

Herbert P. Donald, P. E.
Chief Engineer and General Manager

Reply to Comments
by
Flood Control District of Maricopa County

Letter dated February 2, 1977

1. Comment:

The 500 KV Transmission Line to Kyrene will cross the Powerline Flood Retarding Structure within the northeast quarter of Section 8, Township 1 South, Range 8 East. This Floor Retarding Structure is operated and maintained by us. The height of the structure at the point of crossing is approximately 30 feet above the existing natural ground. The proposed 500 KV Transmission structure, which shows an average height of 129 feet, will clear our structure. The average span length of 1650 feet will allow you to place your Transmission structure so that there should be no inundation problems from flood waters held within our structure. From the preliminary information as to the proposed location of the Transmission structure, there appears to be no conflict, but we would expect to review further preliminary and final plans of the Transmission line within our Flood Retarding Structure area.

On January 28, 1977, we received from the State Land Department notification that they have received Application 16-42304 described as the S 1/2 S 1/2 N 1/2 of Section 8, Township 1 South, Range 8 East. The purpose of the Application was listed as follows: "Erecting, constructing, reconstructing, replacing, repairing, maintaining and using a line of poles, or steel towers and wires or cables suspended thereon and supported thereby, and underground electrical conduits, manholes, transformer pads and vaults for the transmission and distribution of electricity, and for all other purposes connected therewith, together with the right of ingress thereto and egress therefrom, to and along said right of way." The areas as indicated from this Application appears to be approximately 1000 feet south of your Transmission Line as shown on the Silver King to Goldfield Transmission, Figure I-20. If this Application 16-42304 was made by your office for the above mentioned Transmission Line, the purposes as listed and the location as shown could conflict with our Dam, emergency spillway, diversion, dike and access road.

Response: (by USFS)

Figure I-20 in the draft statement showed the 500 KV line passing through the north half of Section 8, Township 1 South, Range 8 East. This was incorrect. The line should be shown passing through the south half of Section 8. The final statement has been revised to reflect this.

With regard to the potential conflicts with the District's flood control structures, Salt River Project has contacted the District and resolved this matter. (See the attached letter from the Flood Control District to Salt River Project, dated March 29, 1977.) Salt River Project will locate its towers outside the spillway, as requested in the letter.

FLOOD CONTROL DISTRICT of Maricopa County

3335 West Durango Street • Phoenix, Arizona 85009 • Telephone (602) 262-1501

March 29, 1977

Mr. Larry E. Hitson
Salt River Project
P. O. Box 1980
Phoenix, Arizona 85001

RE: 500 kv Transmission Line - Coronado Project

Dear Mr. Hitson:

Enclosed is a drawing showing your 500 kv line crossing our Powerline Flood Retarding Dam within Section 8, Township 1 South, Range 8 East. The 500 kv line crosses the north end of our structure and spillway. The span length across our spillway is approximately 1,000'.

If your towers can be located outside of this spillway area we would have no objection.

If you have any questions on this matter, please contact Jack Leavitt of my staff.

Sincerely,

Herbert P. Donald, P.E.
Chief Engineer and General Manager

Director
Thomas W. Fredericks

Attorneys
Richard B. Collins
Raymond Cross
Sharon K. Eads
John E. Echohawk
Walter R. Echo-Hawk
[illegible] H. Getches
[illegible] K. Greene
Daniel H. Israel
Yvonne T. Knight
Arlinda F. Locklear
Charles H. Lohah
Robert S. Pelcyger
A. John Wabaunsee
Jeanne S. Whiteing

Technical Writer
Lorraine Edmo

Business Manager
James A. Laurie

Native American Rights Fund

1506 Broadway • Boulder, Colorado 80302 • (303) 447-8760

Of Counsel
Thomas N. Tureen

Washington Office
1712 N Street, N.W.
Washington, D.C. 20036
(202) 785-4166

Staff Attorneys
Don B. Miller
Sally N. Willett

9 February 1977

Manuel Lopez, Jr.
Regional Director
U.S. Department of the Interior
Bureau of Reclamation
Box 427
Boulder City, NV 89005

Dear Mr. Lopez:

We are in receipt of the Draft Environmental Impact Statement on the Coronado Project. The Native American Rights Fund does not have any clients who have requested our assistance in this matter, and therefore we have given the Statement a cursory review in order to determine whether any of our clients would be adversely affected by the Project. On its face, the Project does not appear to affect Indian lands or people. Should any of our clients, however, request a thorough review of the statement, we will at that time provide specific comments.

Thank you for sending us the Draft Statement.

Sincerely,

Thomas W. Fredericks

TWF/ts

Reply To Comments By
Native American Rights Fund

Letter dated February 9, 1977

No replies are needed to this letter.

MARICOPA COUNTY HIGHWAY DEPARTMENT

3325 WEST DURANGO STREET • PHOENIX, ARIZONA 85009

R. C. ESTERBROOKS, P.E.
COUNTY ENGINEER

F. H. LATHROP, P.E.
DEPUTY COUNTY ENGINEER

February 9, 1977

United States Department of Interior
Bureau of Reclamation
P. O. Box 427
Boulder City, Nevada 89005

Attention Mr. Manuel Lopez

Gentlemen:

Re: Draft Environmental Statement for the Coronado Project

Our review of the Draft Environmental Statement for the Coronado Project does not indicate any conflict with any Maricopa County Highway Department projects.

It should be pointed out however, that the standard right-of-way width for County section line roads is 110 feet (55 feet on each side of section line) and no part of any tower should be closer than 55 feet to the section line.

If any work is required in County Highway right-of-way, a permit will be required. Disruption of traffic should be kept to a minimum, but when it is necessary the contractor will be required to coordinate the traffic movements with our Traffic Engineering Division.

Very truly yours,

R. C. ESTERBROOKS, P.E.
ASSISTANT COUNTY MANAGER
AND COUNTY ENGINEER

F. H. Lathrop

F. H. Lathrop, P.E.
Deputy County Engineer

FHL:mb

Reply to Comments By
Maricopa County Highway Department

Letter dated February 9, 1977

1. Comment:

"It should be pointed out that the standard right-of-way width for county section line roads is 110 feet (55 feet on each side of section line) and that no part of any tower should be closer than 55 feet to the section line."

Response: These constraints will be handled as part of the right-of way application and acquisition process. On federal lands these constraints will be included in the stipulations and appurtenant transportation plans.

Governor
RAUL H. CASTRO

Commissioners:
WILLIAM H. BEERS, Prescott, Chairman
CHARLES F. ROBERTS, O.D., Bisbee
FRANK FERGUSON, JR., Yuma
MILTON G. EVANS, Flagstaff
C. [illegible]E TOLLE, Phoenix

Director
ROBERT A. JANTZEN

Asst. Director, Operations
PHIL M. COSPER

Asst. Director, Services
ROGER J. GRUENEWALD

ARIZONA GAME & FISH DEPARTMENT

2222 West Greenway Road Phoenix, Arizona 85023 942-3000

February 11, 1977

Mr. Manuel Lopez, Jr.
Regional Director
Lower Colorado Region
U.S. Bureau of Reclamation
P. O. Box 427
Boulder City, Nevada 89005

Dear Mr. Lopez:

Personnel of the Arizona Game and Fish Department have ~~reviewed~~ the Draft Environmental Statement (DES) for the Coronado Project dated January 14, 1977. We feel this DES could have been published in a somewhat more timely manner as construction of the project is already well underway. This can be evidenced by Figures 1-5 and 2-13. Also, pertaining to Figures 1-4, will the atmospheric conditions really appear this way during plant operation?

We wish to comment on several items in the DES including the drawdown effects caused by the planned pumping at the three well fields. At what point would the Salt River Project consider an overuse of groundwater to exist at a given field? For instance, are nearby farmers having problems with overdraft or insufficient water supplies at this time? Will a hydrologist or geologist be designated by the Salt River Project to monitor the well fields? Should the waste water ponds as discussed on page I-41 be monitored also in regard to leakage into the aquifers even though the ponds would be sealed. As far as the life of the entire project, how would such aspects as the plant site, the coal sources, and the limestone quarries be restored with vegetation?

There is a known antelope population in the vicinity of the plant site. Landowners along the railroad right-of-way should be informed about installing proper wildlife fencing. As stated on page II-188, "With improper fencing, the potential for bisection of the antelope range, and thus loss of valuable habitat, could have far-reaching effects on the species". The Salt River Project needs to make sure the adjoining landowners are aware of the problem. We would not like to see antelope-proof fences, but would prefer a wildlife fence to permit unrestrictive movement by these animals.

On page II-88, the DES discusses the various vegetative communities found in the project area. One of the communities described is "Badlands"; we are wondering, what is a Badland Community? It should perhaps be included under the sagebrush biome (Great Basin Desert with poor soils). It should not be separated out as an entity of its own.

Page II-105 says, "In addition, the construction of new roads and upgrading of old roads along the transmission lines will cause increased erosion. The cross-country travel during excavation for tower and pulling sites will expose additional acreage to erosion". We agree completely and would like to encourage the Placement of Towers and Conductor Stringing by Helicopter Alternative you present on pages III-56 and 57.

Our Department notes this on page II-107, "... that some 4,042 acres of land will be permanently lost. This amount is not significant when compared to the numbers of acres of land available for each type". We consider this to be rationalizing the project. This is not the only project in the state, and the habitat each one affects all adds up.

Page III-40, 2. Survey and Staking of the two 500 kv transmission lines, sections e and f contains ideas that is of concern to us. We do not feel that wildlife habitat should be sacrificed just so people will not be able to see the transmission lines. Screening transmission lines from public view is a rather poor excuse for destruction and ruination of good wildlife habitat.

Number (4) Watering Devices as mitigating devices on page II-178 would be beneficial in continuing a water supply for wildlife. However, we need to know how many of these devices would be installed and where. Our Department would be more than willing to assist in the placement of these devices or assist in any other mitigation plans Salt River Project intends to implement as a result of this project.

We appreciate the opportunity to comment on this Draft Environmental Statement. Please contact us if additional comments are desired.

Sincerely,

Robert A. Jantzen, Director

By: Robert D. Curtis, Chief
Wildlife Planning & Development

RDC:dd

cc: Mrs. Jo Youngblood, Arizona State Clearinghouse
Robert White, Supervisor, Region I

Reply to Comments
by
Arizona Game and Fish Department

Letter dated February 11, 1977

1. Comment:

We feel this DES could have been published in a somewhat more timely manner as construction of the project is already well underway. This can be evidenced by Figures 1-5 and 2-13.

Response:

The federal agencies that have prepared and published this environmental statement are not involved in any way in the construction of the generating station. Construction is being performed by the Salt River Project using non-federal financing and on private lands. Section I-A has been expanded to more fully explain the federal government's role in this project.

2. Comment:

Also, pertaining to Figures 1-4, will the atmospheric conditions really appear this way during plant operation?

Response:

Only on partly cloudy days.

3. Comment:

We wish to comment on several items in the DES including the drawdown effects caused by the planned pumping at the three well fields. At what point would the Salt River Project consider an overuse of groundwater to exist at a given field? For instance, are nearby farmers having problems with overdraft or insufficient water supplies at this time?

Response:

As stated in Section I.H.4.c., the Water Management Plan is designed to react in the event adverse water level drawdown (actual drawdown exceeding projected drawdown by more than 50%) should occur. The Salt River Project will consider a number of alternate plans including development of an additional wellfield or wellfields to enlarge the area from which water would be pumped. An extensive study was made concerning hydrology and water development during site selection for the Coronado Project. Examination of available water level data and comparison of 1974 measurements with earlier recorded water levels indicates the Kaibab-Coconino aquifer in the St. Johns Site area has not suffered any long-term decline or depletion of water reserves. The yield from wells in the Coconino is variable, ranging from 5 to more than 200 gpm. Most wells are stock wells which have small yields, but irrigation wells in the Hunt area commonly are reported to yield 1,500 to 2,000 gpm.

4. Comment:

Will a hydrologist or geologist be designated by the Salt River Project to monitor the well fields?

Response:

A specific individual has not been designated by SRP to monitor these. Monitoring will be carried out either by SRP staff or contractor forces, in accordance with the Project Water Management Plan.

5. Comment:

Should the waste water ponds as discussed on page I-41 be monitored also in regard to leakage into the aquifers even though the ponds would be sealed?

Response:

Section D.2.j(2) explains how waste water ponds will be monitored to detect leakage.

6. Comment:

As far as the life of the entire project, how would such aspects as the plant site, the coal sources, and the limestone quarries be restored with vegetation?

Response:

Specific revegetative plans have not been developed yet because they would not be needed for at least 35 years. Measures presently being taken assume that there will be little or no intrusion of pollutants into the environment from Project operations. At an appropriate time in the future, presumably a few years before decommissioning of the plant, SRP will develop its restoration plans for the waste pond areas.

7. Comment:

There is a known antelope population in the vicinity of the plant site. Landowners along the railroad right-of-way should be informed about installing proper wildlife fencing. As stated on page II-188, "With improper fencing, the potential for bisection of the antelope range, and thus loss of valuable habitat, could have far-reaching effects on the species". The Salt River Project needs to make sure the adjoining landowners are aware of the problem. We would not like to see antelope-proof fences, but would prefer a wildlife fence to permit unrestrictive movement by these animals.

Response:

By letter dated March 23, 1977 (see reply to comments by U.S. Fish and Wildlife Service) SRP is requesting the Arizona Game and Fish Department for assistance in making the landowners aware of the problem of antelope-proof fencing.

8. Comment:

On page II-88, the DES discusses the various vegetative communities found in the project area. One of the communities described is "Badlands"; we are wondering, what is a Badland Community? It should perhaps be included under the sagebrush biome (Great Basin Desert with poor soils). It should not be separated out as an entity of its own.

Response:

The AG&FD comment is well taken and Section II.B-2.2.b of the final statement has been revised accordingly.

9. Comment:

Page II-105 says, "In addition, the construction of new roads, and upgrading of old roads along the transmission lines will cause increased erosion. The cross-country travel during excavation for tower and pulling sites will expose additional acreage to erosion". We agree completely and would like to encourage the Placement of Towers and Conductor Stringing by Helicopter Alternative you present on pages III-56 and 57.

Response:

Following the filing of this Final ES, SRP will apply for right-of-way on the alinement of their choosing to the agency having jurisdiction over the lands that its preferred alinement follows. The line officer of the agency to which the application is being made, will decide based on the alternatives presented in the Final EIS and the public comments, which alignment he will grant a right-of-way permit or easement across. The agency officials decision letter to SRP will state where (on which alinement) an easement or permit will be granted. Following acceptance of the alinement by SRP, they will be required to submit a centerline plan and profile that will detail the exact location of tower and substation sites.

Following submission of the detailed plans and profile to the local Federal agencies - these agencies will formulate either land or environmental analysis detailed coordinating reports that will require SRP to agree to perform their construction activities in the manner specified in the written stipulations and appurtenant plans.

It is at this stage that construction techniques and final alinements are modified and changed. Following approval of the stipulations and appurtenant plans the agencies issue either right-of-way permits or easements to occupy the Federal lands.

10. Comment:

Our Department notes this on page II-107, "...that some 4,042 acres of land will be permanently lost. This amount is not significant when compared to the numbers of acres of land available for each type". We consider this to be rationalizing the project. This is not the only project in the state, and the habitat each one affects all adds up.

Response:

The comment by the AG&FD is well taken and Section II.C.2.b.(1) has been revised accordingly.

11. Comment:

Page III-40, 2. Survey and Staking of the two 500 kv transmission lines, section e and f contains ideas that is of concern to us. We do not feel that wildlife habitat should be sacrificed just so people will not be able to see the transmission lines. Screening transmission lines from public view is a rather poor excuse for destruction and ruination of good wildlife habitat.

Response:

The reader is referred to the February 23, 1977 letter from the U.S. Fish & Wildlife Service, Comment no. K. The response to this comment is identical to that one.

12. Comment:

Number (4) Watering Devices as mitigating devices on page II-178 would be beneficial in continuing a water supply for wildlife. However, we need to know how many of these devices would be installed and where. Our Department would be more than willing to assist in the placement of these devices or assist in any other mitigation plans Salt River Project intends to implement as a result of this project.

Response:

The Salt River Project has contacted the Arizona Game & Fish Department and the U. S. Fish and Wildlife Service and requested their participation in reviewing the railroad spur design with respect to their interests. Messrs. Bruce R. Duke of the Game & Fish Department and Dick Morgan of the Fish and Wildlife Service have been appointed by their respective agencies to participate in this effort.

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

OFFICE OF THE DIRECTOR

In Reply Refer To:
EGS-DES-77/2
Mail Stop 760

FEB 16 1977

Memorandum

To: Commissioner of Reclamation

Through: Assistant Secretary--Energy and Minerals

James R. Gill
FEB 18 1977

From: Director, Geological Survey

Subject: Review of draft environmental statement for Coronado Project, St. Johns, Arizona

We have reviewed the subject draft environmental statement as requested in your memorandum of January 14.

Environmental impacts related to geologic conditions have been exhaustively treated in the draft environmental statement, which is one of the most comprehensive in the area of geology among the power-plant environmental statements that we have reviewed to date.

Measures should be considered to minimize increased siltation of water courses draining the limestone quarry area. Such increases may result from storm-water erosion of overburden and waste-rock disposal sites owing to high-intensity summer thundershowers (p. I-35 and I-38).

Chemical water-quality monitoring measures (p. II-16) should include the two water courses tributary to Carrizo Wash in order to assess any adverse effects on Carrizo Wash, one of the main tributaries of the Little Colorado River and in turn the Zion Reservoir.

The draft statement indicates fairly detailed consideration of ground-water impacts; however, the following points need clarification or explanation:

(1) No values are given for transmissivity or storage coefficient of the principal aquifer, the Coconino, although values are given for the

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

Kaibab Limestone (p. II-17) and results of a flow net analysis are reported (p. II-130). Published values for the Coconino (e.g., Colley, M. E., Harshbarger, J. W., Akers, J. P., and Hardt, W. F., 1969, Regional hydrogeology of the Navajo and Hopi Indian Reservations, Arizona, New Mexico, and Utah: U.S. Geological Survey Professional Paper 521-A, table 7) suggest that the transmissivity of the Coconino may be appreciably higher than that of the Kaibab.

(2) The text of the final statement should indicate for what length of withdrawal period the interference within well fields and between well fields has been computed (p. II-129, 130); the predicated plant life, 35 years, should be used as at least one basis for calculation. Furthermore, the aquifer characteristics used in anticipating effects on the Kaibab and Coconino aquifer(s) should be stated. Further explanation seems to be needed concerning the apparent discrepancy between the predicted drawdowns of page II-130 and the statement on page I-51 that some wells may be "pumped dry." Time/distance/drawdown graphs or maps showing the areal extent of anticipated drawdowns should be used in the evaluation of impacts.

(3) The statement on page II-17 that aquifer test data showed a transmissivity of "20,000 gallons per day per foot (gal/d/ft) of aquifer..." needs clarification. The units of transmissivity can be expressed as gallons per day per foot of hydraulic gradient per mile through a one-mile cross section measured normal to the direction of the principal flow gradient but not per foot of aquifer. More concisely, in general terms transmissivity is the rate at which water of the prevailing kinematic viscosity is transmitted through a unit width of the full thickness of the aquifer under a unit hydraulic gradient.

Harvey W Culler

Acting Director

Reply to Comments
by
U. S. Geological Survey

Letter dated February 16, 1977

1. Comment:

Measures should be considered to minimize increased siltation of water courses draining the limestone quarry area. Such increases may result from storm-water erosion of overburden and waste-rock disposal sites owing to high-intensity summer thundershowers (p. I-35 and I-38).

Response:

The Mining Law of 1872 imposes no restoration requirements on mining claimants. BLM's new proposed regulations for Surface Management of Public Land under U. S. Mining Laws (43CFR Part 3800) have been published with comments from the public due on April 5, 1977. If enacted, these regulations will require environmental protective measures and restoration of mining areas. SRP has stated that they have no restoration plans at this time for the limestone quarry.

2. Comment:

Chemical water-quality monitoring measures (p. II-16) should include the two water courses tributary to Carrizo Wash in order to assess any adverse effects on Carrizo Wash, one of the main tributaries of the Little Colorado River and in turn the Zion Reservoir.

Response:

It is presently planned, as stated in Section II.D.J.(2) that a gauging station will be constructed on the Little Colorado River above Zion Reservoir. This station is being constructed on the recommendation of the cooperating parties as a point source to monitor base flow and stream flow. The confluence of Carrizo Wash and the Little Colorado River is several miles above Zion Reservoir. Periodic sampling of the water in the Little Colorado River for quality analysis will be made at this station.

The Salt River Project feels that it is neither practicable nor necessary to measure water quality directly in the two water courses tributary to Carrizo Wash, since flow in these water courses is extremely intermittent. Also the existing groundwater level is believed to lie more than 100 feet below the surface of the evaporation pond area under a relatively impervious formation. Adverse effects on the Little Colorado River and Zion Reservoir could be traced upstream in the event that any such effects are measured. Adverse effects on Carrizo Wash would thus be monitored at the Zion Reservoir gauging station.

3. Comment:

The draft statement indicates fairly detailed consideration of groundwater impacts; however, the following points need clarification or explanation:

(1) No values are given for transmissivity or storage coefficient of the principal aquifer, the Coconino, although values are given for the Kaibab Limestone (p. II-17) and results of a flow net analysis are reported (p. II-130). Published values for the Coconino (e.g., Colley, M. E., Harshbarger, J. W., Akers, J. P., and Hardt, W. F., 1969, Regional hydrogeology of the Navajo and Hopi Indian Reservations, Arizona, New Mexico, and Utah; U.S. Geological Survey Professional Paper 521-A, table 7) suggest that the transmissivity of the Coconino may be appreciably higher than that of the Kaibab.

Response:

Three exploration wells were drilled in the St. Johns Site area. The results of these tests indicate transmissivities, (T), for the Kaibab-Coconino aquifer ranging from 7,000 to 14,000 gpd/ft. The value of 7,000 gpd/ft for T is probably not representative of the actual aquifer transmissivity, due to incomplete development of the well. The 14,000 gpd/ft value for T is also probably less than the maximum transmissivity of the aquifer because the test well did not completely penetrate the aquifer.

Analysis of water level drawdown data collected at a nearby windmill during tests of one of the wells indicates a coefficient of storage of .005 for the Kaibab-Coconino aquifer.

Subsequent to the above tests, a pilot production well was constructed in the St. Johns Site area. A long-term pump test was conducted wherein the pilot production well was pumped at the rate of 2,500 gpm for a period of 13 days. Analysis of data collected indicate an overall average transmissivity of 50,000 gpd/ft and a storage coefficient of .001.

4. Comment:

(2) The text of the final statement should indicate for what length of withdrawal period the interference within well fields and between well fields has been computed (p. II-129, 130); the predicated plant life, 35 years, should be used as at least one basis for calculation. Furthermore, the aquifer characteristics used in anticipating effects on the Kaibab and Coconino aquifer(s) should be stated. Further explanation seems to be needed concerning the apparent discrepancy between the predicted drawdowns of page II-130 and the statement on page I-51 that some wells may be "pumped dry." Time/distance/drawdown graphs or maps showing the areal extent of anticipated drawdowns should be used in the evaluation of impacts.

4. Response:

The interference effects between the three well fields chosen for the St. Johns Site were estimated, based on regional water level data collected in the area; aquifer parameters determined by pumping tests; and the pumping rates given for the proposed production wells.

As is indicated on Section II.C.3.g., the groundwater underflow in the aquifer system has been estimated to be about 2,000 acre-feet per year per mile width of aquifer. Preliminary flownet analysis indicate that, after several years of pumping, each of the three well fields would intercept a portion of this groundwater underflow and the water levels would approximate stabilization after the initial 1 to 3 year pumping period. Therefore, the results after pumping for the predicted plant life, 35 years, do not materially differ from the results presented.

The aquifer characteristics used in anticipating the effects on the Kaibab-Coconino aquifer were transmissivity (T) = 25,000 gpd/ft and storage coefficient = .001.

The statement that some wells may be "pumped dry" does not appear on page I-51. The statement on page I-51 is as follows:

> "It is expected that the life of the wells will coincide with the 35-year life of the powerplant. It is feasible that some of the wells may go dry druing the life of the project due to inadequate groundwater replenishment or other unforeseen conditions. If this occurs to the point where the water supply is deficient, another source would have to be obtained."

The best data presently available indicates that this problem will simply not occur. According to Harshbarger and Associates, the SRP wellfields could yield up to 250,000 acre feet of water, which is quite a bit more than the 15,000 acre feet needed for the Coronado Project. Harshbarger and Associates concluded that the Kaibab-Coconino aquifer, which underlies the SRP wellfields, is large enough to support the Coronado Project without affecting other water users or the natural environment. Well yields of 1,000 to 1,800 gallons per minute are common in the area and have not resulted in a large water level decline. It is felt, on the basis of the present analysis, that the predicted drawdowns shown on page II-130 are still valid.

5. Comment:

(3) The statement on page II-17 that aquifer test data showed a transmissivity of "20,000 gallons per day per foot (gal/d/ft) of aquifer..." needs clarification. The units of transmissivity can be expressed as gallons per day per foot of hydraulic gradient per mile through a one-mile cross section measured normal to the direction of the principal flow gradient but <u>not</u> per foot of aquifer.

5. Comment - continued...

More concisely, in general terms transmissivity is the rate at which water of the prevailing kinematic viscosity is transmitted through a unit width of the full thickness of the aquifer under a unit hydraulic gradient.

Response:

Transmissivity (T) is defined as the rate of flow in gallons per day through a vertical section of an aquifer whose height is the saturated depth of an aquifer and whose width is one foot, under a unit hydraulic gradient. The use of the words "foot of aquifer", in the context of page II-17, refers to foot of aquifer width.

ADDRESS ONLY THE DIRECTOR,
FISH AND WILDLIFE SERVICE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

In Reply Refer To:
FWS/EC
DES-77/2

FEB 23 1977

Memorandum

To: Commissioner of Reclamation, Washington, D.C.

From: Chief, Branch of Environmental Coordination

Subject: Review of Draft Environmental Statement -- Coronado Project
INT. DES. 77-2

We have reviewed the above subject statement and find it generally describes project impacts related to fish and wildlife. However, some sections of the report need clarification to alleviate concerns we have on particular aspects of this proposed electrical generating plant.

Section 1. Part I. Description of the Coal-Haul Spur Railroad

Subheading (3)(a)(3) Bridges and Culverts Page 55

It is stated in this section that the bridge crossings along the proposed alignment would be located over Hardscrabble Wash, Zuni River, and Carrizo Wash. Since riparian vegetation is heavily utilized by wildlife species for food and cover, it is recommended that the contractor in charge of construction of the bridge crossings be made aware of the value of this type of vegetation. Construction activities should be modified so that clearing of vegetation will be held to a minimum. Stipulations on vegetation clearing should be written into the final contract agreement of the designated contractor.

Section 1. Part I. Description of the Coal-Haul Spur Railroad

Subheading (3)(a)(5) Borrow Areas Page 57

In construction of the railroad it has been estimated that 290,000 cubic yards of borrow material will be required. The borrow material should not be excavated from areas having riparian vegetation. Excavation

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

also should not alter or impair the flow characteristics of any washes or streams found within the area. Exclusion areas such as those mentioned above should be included in the final contract agreement of the designated contractor.

Section I. Part I. Description of the Coal-Haul Spur Railroad

Subheading (3)(a)(6) Fencing Pages 57-58

As discussed in this section of the report, right-of-way fencing tends to inhibit wildlife migration. A study should be made prior to the building of the right-of-way fence to determine the chief migration routes of such mammals as antelope whose movements could be severely restricted by building of a fence of an improper design. Proper fence design at key migration points would be a beneficial mitigation feature and should be discussed in the text.

Section II. Part C. Environmental Impacts of the Proposed Action

Subheading (2)(a)(2) Impacts on Soils Page 105

It is stated that the construction of new roads and upgrading of old roads along the transmission lines will cause increased erosion. It also mentioned on page 106 under the heading "Impacts on Vegetation" that a total of 526 acres of vegetation will be permanently destroyed as a result of building the transmission lines for the Coronado Project. Much of the environmental damage caused by the upgrading or construction of new access roads along the powerline route could be eliminated by using helicopters in erecting towers and stringing of powerlines. This alternative is discussed in Section III, pages 56 and 57, and should be incorporated in areas of rugged terrain or those areas providing habitat for federally listed threatened or endangered species or those species found in Arizona Game and Fish Department's list of "Threatened Wildlife of Arizona."

Section II. Part C. Environmental Impacts of the Proposed Action

Subheading (2)(b)(1) Impacts on Vegetation Page 106

Although the report in most instances adequately discusses adverse project impacts on vegetation, there is unjustifiable rationalizing in this section that the permanent loss of 4,042 acres of vegetation is not significant because there is sufficient quantity of like habitat elsewhere in the state. A loss of 4,042 acres of vegetation is not insignificant. It should be realized by the project sponsors that this project is just one of many within the state and that habitat perturbations of this project and the resulting decline of fish and wildlife species are in essence magnified by the cumulative effect of all these projects.

Section II. Part C. Environmental Impacts of the Proposed Action

Subheading (3)(h)(1) Soils and Trace Elements Page 135

In this section the possibility is discussed of damming or placing diversion ditches in association with bridges or culverts crossing intermittent streams in the area. Any diversion or damming of natural water flows may have adverse effects on downstream vegetation. In Section I, page 55 it was learned that bridges crossing along the proposed alignment would be located over Hardscrabble Wash, Zuni River and Carrizo Wash. From the information given in Section II of the report, it is impossible to determine the number and the locations of culverts and underpasses along the proposed railroad route. Once the final alignment route is selected it is recommended that a study team composed of representatives of Arizona Game and Fish Department and U.S. Fish and Wildlife Service meet with project engineers and make field evaluation as to the placement and number of bridges, culverts and underpasses to mitigate vegetation losses as a result of the project.

Section II. Part C. Environmental Impacts of the Proposed Action

Subheading (4)(b)(2) Wildlife Page 144

Emissions from the plant operation are discussed in this section of the text. It is assumed that because operation of the plant is within Federal and state standards there will be no damaging effects to wildlife from emissions. Since little is known about the long-term effects of powerplant emissions, especially their synergistic effects on plants and animals, long-term monitoring of flora and fauna species of all trophic levels should be conducted on and off the powerplant site. Monitoring of emission effects on plant and wildlife species should be done so if changes in plant and wildlife abundances and species complexities do occur, investigations can be made to determine the problem and alternatives can be chosen to correct the situation. Long-term monitoring programs should be coordinated with our Service and Arizona Game and Fish Department to ensure that proper data is gathered.

Section II. Part D. Mitigation and Enhancement Measures

This section should include comments on the restoration plans for the coal mined areas.

Section II. Part D. Mitigation and Enhancement Measures

Subheading (2)(i) Limestone Source Page 173

The text discusses the limestone claim which will be mined for the generating plant. Restoration plans should be discussed for this area after the life of the project.

Section II. Part D. Mitigation and Enhancement Measures

Subheading (2)(j) Monitoring Programs Pages 174-177

In this section it is not clear which agency will be responsible for the monitoring programs concerning air quality, and the groundwater quality in the immediate area of the solid and liquid waste impoundments at Coronado Station, well water level measurements and chemical quality of groundwater once the proposed electrical generating plant is in actual operation.

This section of the report also goes into considerable detail on how baseline information will be collected prior to plant operation and how comparable information will be gathered after the plant becomes operational. Monitoring in itself is not a mitigation feature unless standards are set for the parameters to be monitored and a point in time is set when Salt River Project will be responsible for modifying their operations if the prescribed standards are not met.

Section II. Part D. Mitigation and Enhancement Measures

Subheading (4)(b) Revegetation Page 177

It is stated that one of the mitigating measures for the construction of the coal-haul railroad would be the planting of ground cover in all abandoned access roads, slopes of cuts and fills, or other areas where vegetative cover had been destroyed. The mitigation measures should also be adopted wherever possible at the Coronado plant site. Any revegetation plan should be thoroughly discussed with the Arizona Game and Fish Department so plant species having the greatest benefit to wildlife will be selected.

Section II. Part D. Mitigation and Enhancement Measures

Subheading (4)(e) Watering Devices Page 178

It is discussed that equivalent water supplies will be provided downstream of the railroad bed if it is determined that the presence of the railroad would significantly interfere with existing water impoundments. A determination of the severity of this problem should be stated in the final EIS along with the approximate number and location of the present impoundments that are expected to be impacted as a result of the project.

Section II. Part E. Unavoidable Adverse Environmental Impacts

Subheading (3)(b) On the Physical Environment Page 185

Additional information is needed in this section on the final decommissioning of the electric generating plant and its associated facilities. The solid

and liquid waste impoundments which are discussed in Section I "Waste Disposal Systems" Pages 39-43 may be contaminants and could have a detrimental effect on fish and wildlife if not disposed of properly. A final disposal plan for these wastes once the plant is decommissioned should be worked out with the U.S. Fish and Wildlife Service and the Arizona Game and Fish Department prior to the operation of the plant.

This section should also stipulate if restoration of the site and its associated facilities after decommissioning include general land grading and revegetation. Any revegetation plan should be thoroughly discussed with the Arizona Game and Fish Department so that plant species having the greatest benefit to wildlife will be selected.

Section II. Part E. Unavoidable Adverse Environmental Impacts

Subheading (5)(c) On the Biological Environment Page 188

It is noted that improper fencing associated with building and operating of the coal-haul railroad could have a far-reaching detrimental effect on the antelope found within the project area. It is further stated that fencing on Federal lands will be subject to approval by BLM whereas private landowners have the option for the type of fence they want. It is recommended that the project sponsors discuss with each landowner in the right-of-way the problems antelope have in negotiating certain types of fencing. It should be explained to the landowners that net wire fences are detrimental to antelope movement whereas conventional fences of barbed and smooth wire allow pronghorn to crawl under. A barbed wire fence 42 inches high with a smooth bottom wire that is placed 16 inches above the ground is an overall good designed fence that will not restrict antelope movement. If the landowners can be made aware of this problem, many of them might consider fencing which would not impede antelope movement within their range. A restriction in movement would be critical in key migration route areas and where sources of water can be found. It also recommended that private landowners who need the net wire fencing should consider removing short spans of 50 to 200 yards of the antelope-proof fencing and replacing with the more conventional type fencing as described above.

Section III. Part C. Environmental Impacts of the Proposed Action

Subheading 4 Vegetation Page 22

In the section which discusses revegetation with the opportunity for improving both livestock and wildlife forage, it is again recommended that the project sponsors consult with the Arizona Game and Fish Department on which type of plants would have the highest value to wildlife.

Section III. Part D. Mitigating and Enhancement Measures

Subheading (2)(f) Survey and Staking Page 40

It is suggested in this section that for aesthetic reasons powerlines should be located behind ridges which would be out of view from existing routes of travel. It should be noted that oftentimes routing of powerlines behind mountain ranges or ridges may cause the development of additional access roads into wildlife habitat that previously were not disturbed. This action could result in the loss of many additional acres of wildlife habitat which could have been avoided by placing the powerline parallel to an existing roadway.

Section III. Part D. Mitigating and Enhancement Measures

Subheading (4)(k) Clearing Page 42

It stated in this recommenation after a finalized list of threatened and endangered plant species is published, the company will be required to perform an inspection to identify such species. It is suggested that the project sponsors not wait to make a survey of plant species upon finalization of a list of threatened and endangered plant species. When a final list is published, Section 7 of the 1973 Endangered Species Act and its associated consultation requirements will immediately become effective on all Federal lands. If not enough foresight is given in project planning and the Act does become effective, undue costly delays in project planning could result. In addition, our Service believes that the protection of critical plant species should be part of the overall project planning.

S. H. Jaat

Replies to Comments
by
U. S. Fish and Wildlife Service

Letter dated February 23, 1977

1. Comment:

Section 1. Part I. Description of the Coal-Haul Spur Railroad

Subheading (3)(a)(3) Bridges and Culverts Page 55

It is stated in this section that the bridge crossings along the proposed alignment would be located over Hardscrabble Wash, Zuni River, and Carrizo Wash. Since riparian vegetation is heavily utilized by wildlife species for food and cover, it is recommended that the contractor in charge of construction of the bridge crossings be made aware of the value of this type of vegetation. Construction activities should be modified so that clearing of vegetation will be held to a minimum. Stipulations on vegetation clearing should be written into the final contract agreement of the designated contractor.

Response:

Construction will be performed by contractors in the service of Salt River Project. SRP recognizes the value of riparian vegetation in the project area and construction contracts call for minimum disturbances of vegetated areas. Construction contract clauses include:

"The Contractor shall restrict its activities to the Jobsite, possible subballast borrow sites, and designated private roads as shown and public roads. Should the Contractor find it necessary or advantageous to use land outside these areas for any purpose whatever, it shall obtain the Engineer's approval to conduct specific operations there, and the Contractor shall, at its expense, make its own arrangements with the landowner or lessee for the use of such land and it shall comply with environmental requirements.

Any vehicular traffic over land adjacent to the right-of-way will permanently damage the land. Cost for repair of, or restitution for such damage caused by the Contractor, or any of its subcontractors, will be reimbursed to the land owned by the Contractor.

The Contractor will submit to the Engineer proof that satisfactory reimbursement has been made to the owner. In the event the Contractor fails to reimburse the owner, the costs for damages or restitution will be deducted from payments due the Contractor in accordance with Article 3.26, Compensation and Payments."

" (protection of vegetation) " Rights-of-Way across BLM lands in the vicinity of Carrizo and Hardscrabble Wash will contain stipulations for the protection and minimal disturbance of the riparian habitat. Protective stipulations for other ownerships will be the responsibility of Salt River Project.

2. Comment:

Section 1. Part I. Description of the Coal-Haul Spur Railroad

Subheading (3)(a)(5) Borrow Areas Page 57

In construction of the railroad it has been estimated that 290,000 cubic yards of borrow material will be required. The borrow material should not be excavated from areas having riparian vegetation. Excavation also should not alter or impair the flow characteristics of any washes or streams found within the area. Exclusion areas such as those mentioned above should be included in the final contract agreement of the designated contractor.

Response:

Figure No. I-17 shows the areas that will be used for borrow purposes. Use of these areas will not significantly affect riparian vegetation.

3. Comment:

Section 1. Part I. Description of the Coal-Haul Spur Railroad

Subheading (3)(a)(6) Fencing Pages 57-58

As discussed in this section of the report, right-of-way fencing tends to inhibit wildlife migration. A study should be made prior to the building of the right-of-way fence to determine the chief migration routes of such mammals as antelope whose movements could be severely restricted by building of a fence of an improper design. Proper fence design at key migration points would be a beneficial mitigation feature and should be discussed in the text.

Response:

SRP recognizes the importance of proper fencing along the railroad right-of-way so as not to inhibit existing migration routes. By letter dated March 23, 1977 to Mr. Robert D. Curtis of the Arizona Game & Fish Department, SRP requested the assistance of the Department in locating suitable fencing (see attached). As stated in Section II.D.4.f., fencing on private lands will be at the option of the owner. Fencing on public lands will not inhibit wildlife mitigation routes.

4. Comment:

Section 11. Part C. Environmental Impacts of the Proposed Action

Subheading (2)(a)(2) Impacts on Soils Page 105

It is stated that the construction of new roads and upgrading of old roads along the transmission lines will cause increased erosion. It also mentioned on page 106 under the heading "Impacts on Vegetation" that a total of 526 acres of vegetation will be permanently destroyed

4. Comment - continued...

as a result of building the transmission lines for the Coronado Project. Most of the environmental damage caused by the upgrading or construction of new access roads along the powerline route could be eliminated by using helicopters in erecting towers and stringing of powerlines. This alternative is discussed in Section III, pages 56 and 57, and should be incorporated in areas of rugged terrain or those areas providing habitat for federally listed threatened or endangered species or those species found in Arizona Game and Fish Department's list of "Threatened Wildlife of Arizona."

Response:

Table II - 26 A - Acres of Vegetation Permanently Destroyed Due to the Coronado Project reflects that 526 acres of vegetation will be permanently destroyed due to construction of the Coronado Project transmission lines. These acres will be utilized by tower sites and permanently maintained access roads. Construction stipulations and appurtenant plans that will be issued prior to issuance of the easement, will designate specific areas where roads will not be allowed due to critical environmental concerns.

5. Comment:

Section II. Part C. Environmental Impacts of the Proposed Action

Subheading (2)(b)(1) Impacts on Vegetation Page 106

Although the report in most instances adequately discusses adverse project impacts on vegetation, there is unjustifiable rationalizing in this section that the permanent loss of 4,042 acres of vegetation is not significant because there is sufficient quantity of like habitat elsewhere in the state. A loss of 4,042 acres of vegetation is not insignificant. It should be realized by the project sponsors that this project is just one of many within the state and that habitat perturbances of this project and the resulting decline of fish and wildlife species are in essence magnified by the cumulative effect of all these projects.

Response:

The Fish and Wildlife Service's point is well taken. Section II.C.2.b.(1) has been revised accordingly.

6. Comment:

Section II. Part C. Environmental Impacts of the Proposed Action

Subheading (3)(h)(1) Soils and Trace Elements Page 135

In this section the possibility is discussed of damming or placing diversion ditches in association with bridges or culverts crossing intermittent streams in the area. Any diversion or damming of natural water flows may have adverse effects on downstream vegetation. In Section I, page 55 it was learned that bridges crossing along the

6. Comment - continued.....

proposed alignment would be located over Hardscrabble Wash, Zuni River and Carrizo Wash. From the information given in Section 11 of the report, it is impossible to determine the number and the locations of culverts and underpasses along the proposed railroad route. Once the final alignment route is selected it is recommended that a study team composed of representatives of Arizona Game and Fish Department and U.S. Fish and Wildlife Service meet with project engineers and make field evaluation as to the placement and number of bridges, culverts and underpasses to mitigate vegetation losses as a result of the project.

Response:

The Salt River Project has contacted the U.S. Fish and Wildlife Service, as well as the Arizona Game & Fish Department, and requested their participation and assistance in this matter.

7. Comment:

Section 11. Part C. Environmental Impacts of the Proposed Action

Subheading (4)(b)(2) Wildlife Page 144

Emissions from the plant operation are discussed in this section of the text. It is assumed that because operation of the plant is within Federal and state standards there will be no damaging effects to wildlife from emissions. Since little is known about the long-term effects of power plant emissions, especially their synergistic effects on plants and animals, long-term monitoring of flora and fauna species of all trophic levels should be conducted on and off the powerplant site. Monitoring of emissions effects on plant and wildlife species should be done so if changes in plant and wildlife abundances and species complexities can be chosen to correct the situation. Long-term monitoring programs should be coordinated with our Service and Arizona Game and Fish Department to ensure that proper data is gathered.

Response:

Federal secondary standards for ambient air quality, which the Coronado station will meet, were established by the U. S. Environmental Protection Agency (EPA) "...to protect the public welfare from any known or anticipated adverse effects of a pollutant." (40 CFR 50.2) Since these standards are based on the best scientific information currently available, it is generally believed that a detailed study at the Coronado Station is not warranted.

Furthermore, the Salt River Project (SRP) is currently sponsoring a six-year study at the Navajo Generating Station, near Page, Arizona to monitor the flora and fauna species in the region. The study, now in its fifth year, is being conducted by Northern Arizona University and Brigham Young University at a cost of over $600,000.

7. Response - continued....

Three years of baseline data were taken prior to the plant's operation. Two years of monitoring with the plant in operation have been completed. Results from the study are as yet inconclusive and work is continuing. Reports on this study can be made available by SRP, including the three years of baseline data. This is the most comprehensive program of its type undertaken in the Southwest. SRP is not willing to commit itself to another study of this magnitude while work is continuing at the Navajo Plant. However, SRP supports any effort that the U.S. Fish and Wildlife Service would like to undertake in that area.

8. Comment:

Section 11. Part D. Mitigation and Enhancement Measures

This section should include comments on the restoration plans for the coal mined areas.

Response:

As described in the text, the mitigation measures proposed for the McKinley Mine were adequately identified in the final environmental statement for the Cholla Project filed with the Council on Environmental Quality by the U.S. Forest Service on April 9, 1975. To repeat them here would result in unnecessary redundancy.

9. Comment:

Section 11. Part D. Mitigation and Enhancement Measures

Subheading (2)(i) Limestone Source Page 173

The text discusses the limestone claim which will be mined for the generating plant. Restoration plans should be discussed for this area after the life of the project.

Response:

The Mining Law of 1872 imposes no restoration requirements on mining claimants. BLM's new proposed regulations for Surface Management of Public Land under U.S. Mining Laws (43 CFR Part 3800) have been published with comments due by 4-5-77. If enacted, these regulations will require environmental protective measures and restoration of mining areas. SRP has stated that they have no restoration plans at this time for the limestone quarry.

10. Comment:

Section 11. Part D. Mitigation and Enhancement Measures

Subheading (2)(j) Monitoring Programs Pages 174-177

In this section it is not clear which agency will be responsible for the monitoring programs concerning air quality and the groundwater

10. Comment - continued...

quality in the immediate area of the solid and liquid waste impoundments at Coronado Station, well water level measurements and chemical quality of groundwater once the proposed electrical generating plant is in actual operation.

This section of the report also goes into considerable detail on how baseline information will be collected prior to plant operation and how comparable information will be gathered after the plant becomes operational. Monitoring in itself is not a mitigation feature unless standards are set for the parameters to be monitored and a point in time is set when Salt River Project will be responsible for modifying their operations if the prescribed standards are not met.

Response:

The Section has been revised to show who will be conducting the monitoring programs. Other sections of the statement show the allowable emissions for various air pollutants from the Coronado Generating Station which constitute the standards that the monitoring program will be geared to.

The contention that all monitoring programs require a set of standards for the parameters being monitored is debatable. Standards imply legal constraints or limitations. In the case of groundwater monitoring, these standards have not been promulgated, but monitoring programs can be used to identify changing significant trends.

Applicable air and water quality standards are established in title 9 of the State of Arizona Official Compilation of Administrative Rules and Regulations, and are reflected in the environmental statement where appropriate (see table II-28 for air quality standards). Less stringent Federal standards may also apply. Federal new source review approval and State Installation/Operating permit approval and annual renewal are contingent upon determination that the facility can and will operate in compliance with established air and water quality standards (see table I-1 for permit requirements). In the unlikely event that prescribed standards are then not met, the State may invoke action under the Arizona Revised Statute to abate or require installation of additional abatement equipment so as to comply with the standards. The Environmental Protection Agency may also invoke similar action under the Clean Air Act or the Federal Water Pollution Control Act.

11. Comment:

Section 11. Part D. Mitigation and Enhancement Measures

Subheading (4)(b) Revegetation Page 177

It is stated that one of the mitigating measures for the construction of the coal-haul railroad would be the planting of ground cover in all abandoned access roads, slopes of cuts and fills, or other areas where vegetative cover had been destroyed. The mitigation

11. Comment - continued....

measures should also be adopted wherever possible at the Coronado plant site. Any revegetation plan should be thoroughly discussed with the Arizona Game and Fish Department so plant species having the greatest benefit to wildlife will be selected.

Response:

Since publication of the draft environmental statement the Salt River Project has changed its position on revegetating right-of-way and does not now plan to revegetate.

12. Comment:

Section 11. Part D. Mitigation and Enhancement Measures

Subheading (4)(e) Watering Devices Page 178

It is discussed that equivalent water supplies will be provided downstream of the railroad bed if it is determined that the presence of the railroad would significantly interfere with existing water impoundments. A determination of the severity of this problem should be stated in the final EIS along with the approximate number and location of the present impoundments that are expected to be impacted as a result of the project.

Response:

There are no reservoirs located on the BLM lands crossed by the railroad. There is one waterline to a watering trough located in the E 1/2 of Sec. 30, T. 16 N., R. 28 E., that will require mitigation by relocation or burying under the railroad. All cross drainages which carry significant runoff or feed downstream impoundments will require culverts on BLM lands. On private lands railroad construction will be modified to provide drainage to all water impoundments, subject to the stipulations of the landowner.

13. Comment:

Section 11. Part E. Unavoidable Adverse Environmental Impacts

Subheading (3)(b) On the Physical Environment Page 185

Additional information is needed in this section on the final decommissioning of the electric generating plant and its associated facilities. The solid and liquid waste impoundments which are discussed in Section 1 "Waste Disposal Systems" Pages 39-43 may be contaminants and could have a detrimental effect on fish and wildlife if not disposed of properly. A final disposal plan for these wastes once the plant is decommissioned should be worked out with the U.S. Fish and Wildlife Service and the Arizona Game and Fish Department prior to the operation of the plant.

This section should also stipulate if restoration of the site and its associated facilities after decommissioning include general land

13. Comment - continued...

grading and revegetation. Any revegetation plan should be thoroughly discussed with the Arizona Game and Fish Department so that plant species having the greatest benefit to wildlife will be selected.

Response:

The present plans for solid and liquid waste disposal represent the most practical means of disposing of these wastes under present technology. Sufficient safeguards are being taken to prevent detrimental intrusion of pollutants into the surface and sub-surface environments. While SRP is aware of the problems associated with ultimate disposals of these wastes, it is reluctant to develop a detailed waste disposal plan for an event that is not scheduled to occur for 35 years. There are many reasons for this some of which being that new technology may improve disposal and regenerative methods over time or that these wastes may have some intrinsic value in later years that would make them economically recoverable.

There would be no legal basis for stipulations requiring restoration since the lands affected are private holdings.

14. Comment:

Section 11. Part E. Unavoidable Adverse Environmental Impacts

Subheading (5)(c) On the Biological Environment Page 188

It is noted that improper fencing associated with building and operating of the coal-haul railroad could have a far-reaching detrimental effect on the antelope found within the project area. It is further stated that fencing on Federal lands will be subject to approval by BLM whereas private landowners have the option for the type of fence they want. It is recommended that the project sponsors discuss with each landowner in the right-of-way the problems antelope have in negotiating certain types of fencing. It should be explained to the landowners that net wire fences are detrimental to antelope movement whereas conventional fences of barbed and smooth wire allow pronghorn to crawl under. A barbed wire fence 42 inches high with a smooth bottom wire that is placed 16 inches above the ground is an overall good designed fence that will not restrict antelope movement. If the landowners can be made aware of this problem, many of them might consider fencing which would not impede antelope movement within their range. A restriction in movement would be critical in key migration route areas and where sources of water can be found. It also recommended that private landowners who need the net wire fencing should consider removing short spans of 50 to 200 yards of the antelope-proof fencing and replacing with the more conventional type fencing as decribed above.

Response:

The reader is referred to the response to comment No. 3 of this letter. SRP, working with the Arizona Department of Game and Fish, is making the landowners aware of the problems associated with antelope fencing.

15. Comment:

Section 111. Part C. Environmental Impacts of the Proposed Action

Subheading 4 Vegetation Page 22

In the section which discusses revegetation with the opportunity for improving both livestock and wildlife forage, it is again recommended that the project sponsors consult with the Arizona Game and Fish Department on which type of plants would have the highest value to wildlife.

Response:

Both the Forest Service and BLM Wildlife Biologist work in cooperation with the Arizona Game and Fish Department to determine the best seeding mixture for wildlife in each vegetative type. Table III-2, approximate miles of vegetation traversed by the transmission line, has been revised to further clarify the number of acres (1920) that will be occupied by access roads and tower sites by plant communities.

16. Comment:

Section 111. Part D. Mitigating and Enhancement Measures

Subheading (2)(f) Survey and Staking Page 40

It is suggested in this section that for aesthetic reasons powerlines should be located behind ridges which would be out of view from existing routes of travel. It should be noted that oftentimes routing of powerlines behind mountain ranges or ridges may cause the development of additional access roads into wildlife habitat that previously were not disturbed. This action could result in the loss of many additional acres of wildlife habitat which could have been avoided by placing the powerlines parallel to an existing roadway.

Response:

The Forest Service objective in planning or laying out transmission lines is expressed in a USDA Agricultural Handbook 478, entitled "National Forest Landscape Management Vol. 2 Chapter 2, Utilities." Succintly stated, "The objective is to plan, design and construct utilities in a manner that will visually harmonize them with or subordinate them to the landscape." In addition to the above policy, an analysis of Table III-5 "No. of miles of Road by Condition and Link No." on page III-30, indicates that 74% of the Coronado project transmission corridors is already roaded.

The amount of road that will be left open following construction of the transmission line will be determined by the landowners. On National Forest and public domain lands administered by the BLM, easement stipulations and appurtenant plans are signed by the grantee prior to issuance of the easement. Appurtenant plans such as Erosion Control and transportation specify the specific roads that will not be left open, the degree to which they will be closed as well as the species and amount of seed per acre that will be used to revegetate the roads after closure. Therefore, in many cases, more wildlife forage is provided following construction than was available prior to construction because more palatable wildlife species are introduced through revegetation measures.

17. Comment:

Section 111. Part D. Mitigation and Enhancement Measures

Subheading (4)(k) Clearing Page 42

It stated in this recommendation after a finalized list of threatened and endangered plant species is published, the company will be required to perform an inspection to identify such species. It is suggested that the project sponsors not wait to make a survey of plant species upon finalization of a list of threatened and endangered plant species. When a final list is published, Section 7 of the 1973 Endangered Species Act and its associated consultation requirements will immediately become effective on all Federal lands. If not enough forsight is given in project planning and the Act does become effective, undue costly delays in project planning could result. In addition, our Service believes that the protection of critical plant species should be part of the overall project planning.

Response:

The Federal agencies comprising the EIS study team recognize the mandates of the Endangered Species Act and work with this Act on a regular basis. All species noted in the Draft Statement were found on the June 16, 1976 Federal Register of plants proposed to be classified as either threatened or endangered. However, it must be pointed out that this interim list is proposed and has not been finalized. When the interim list has been finalized then promulgated studies will be initiated to determine if any of the newly designated endangered or threatened plant species are on the rights-of-way across Federal lands. If such species are found then consultation with the Fish and Wildlife Service will be undertaken as appropriate in accordance with Section 7 of the Endangered Species Act of 1973. Close cooperation will be maintained with the Fish and Wildlife Service personnel.

SALT RIVER PROJECT
P.O. BOX 1980
PHOENIX, ARIZONA 85001

TELEPHONE 273-5900

March 23, 1977

Robert D. Curtis, Chief
Wildlife Planning & Development
Arizona Game & Fish Department
222 West Greenway Road
Phoenix, Arizona 85023

Dear Mr. Curtis:

The U.S. Bureau of Reclamation forwarded us a copy of your letter commenting on the Coronado Project Draft Environmental Statement. In your letter you suggested that Salt River Project make landowners along the proposed railroad route aware of the problem of antelope-proof fencing.

SRP concurs with this position and would like to request the assistance of the Game & Fish Department in this matter. One of our right-of-way agents suggested that if a brief (one page) statement of the problem (with recommended fencing types described) was available, it would be a simple matter for our right-of-way agents to pass this information along to landowners. If you agree with this approach it would be greatly appreciated if the Game & Fish Department could prepare such a statement for SRP's use as noted above.

If you have any questions on this please feel free to call me at 273-2618.

Sincerely,

Frank T. Darmiento

Frank T. Darmiento
Environmental Planning Division

jt

cc: A. Q. Colton
G. W. Frey - USBR

MARICOPA COUNTY PLANNING DEPARTMENT

300 County Administration Bldg. 111 S. 3rd Avenue, Phoenix, Arizona 85003

February 23, 1977

Manuel Lopez, Jr.
Regional Director
Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 427
Boulder City, Nevada 89005

Gentlemen:

We have reviewed the Draft Environmental Impact Statement for the Coronado Project, prepared by the Bureau of Reclamation. Our only comment addresses the Kyrene Silver King 500hv Transmission Line. This route is in close proximity to several large scale developments which are currently under construction. These developments have been located on the enclosed Zoning Maps.

If we can be of further assistance, please feel free to contact us.

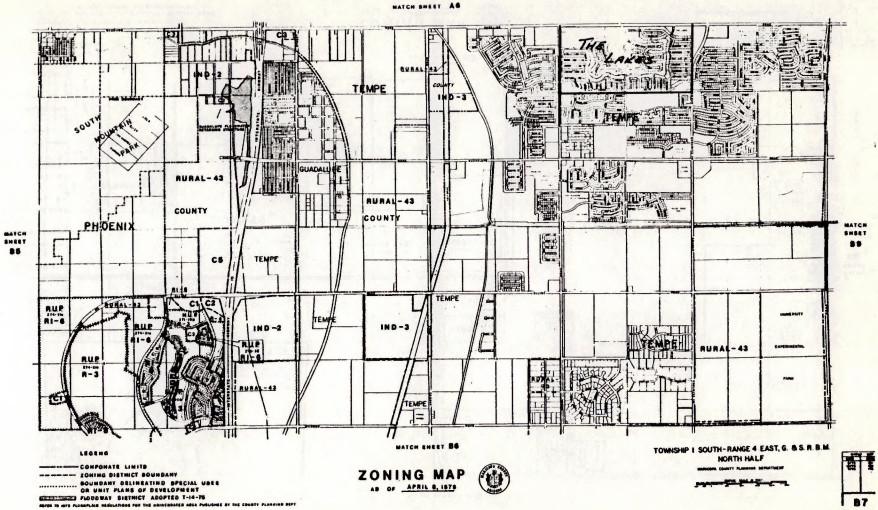
Respectfully,

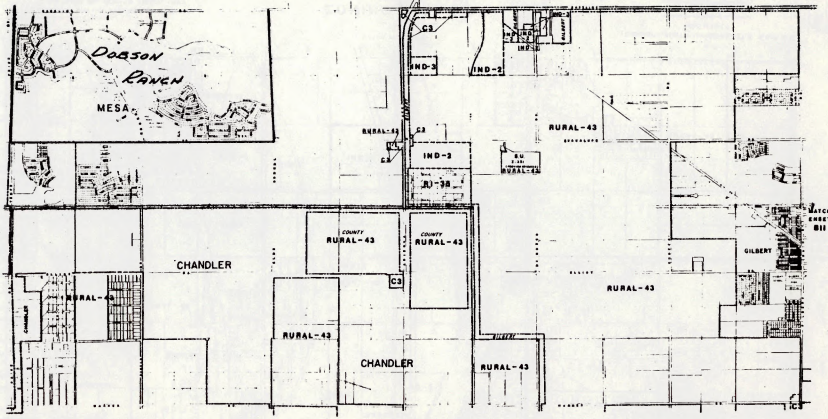
Don E. McDaniel, Jr.
Planning Director

Frank A. Schuma
Principal Planner
Advance Planning Division

FAS/cr

Enclosures


MATCH SHEET A6
MATCH SHEET B5
MATCH SHEET B9
MATCH SHEET B6
THE LAKES
TEMPE
IND-2
IND-3
RURAL-43
COUNTY
SOUTH MOUNTAIN PARK
GUADALUPE
PHOENIX
C5
C1
C2
C3
RUP RI-6
RUP RI-3
RURAL-43
LEGEND
CORPORATE LIMITS
ZONING DISTRICT BOUNDARY
BOUNDARY DELINEATING SPECIAL USES OR UNIT PLANS OF DEVELOPMENT
FLOODWAY DISTRICT ADOPTED 7-14-75
REFER TO MFS PLANNING REGULATIONS FOR THE ADMINISTRATIVE AREA PUBLISHED BY THE COUNTY PLANNING DEPT
ZONING MAP
AS OF APRIL 6, 1979
TOWNSHIP 1 SOUTH-RANGE 4 EAST, G. & S. R. B. M.
NORTH HALF
B7



LEGEND

CORPORATE LIMITS

ZONING DISTRICT BOUNDARY

BOUNDARY DELINEATING SPECIAL USES OR UNIT PLANS OF DEVELOPMENT

ZONING MAP

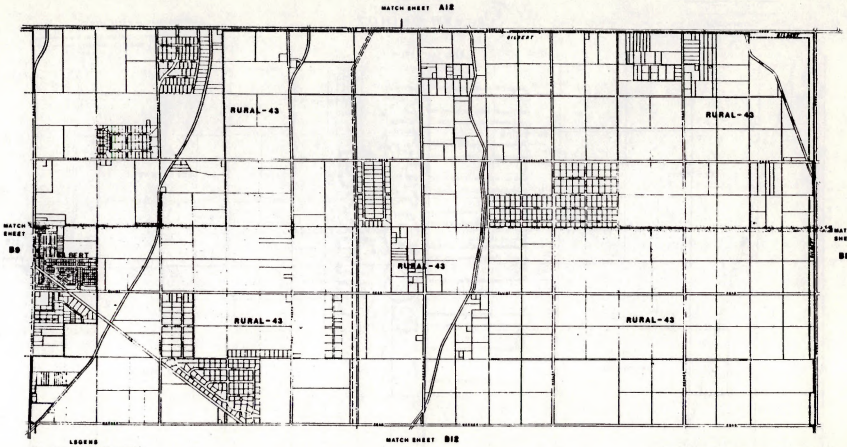
AS OF APRIL 8, 1976

TOWNSHIP 1 SOUTH - RANGE 5 EAST, G. & S. R. B. M.

NORTH HALF

MARICOPA COUNTY PLANNING DEPARTMENT

B9



ZONING MAP

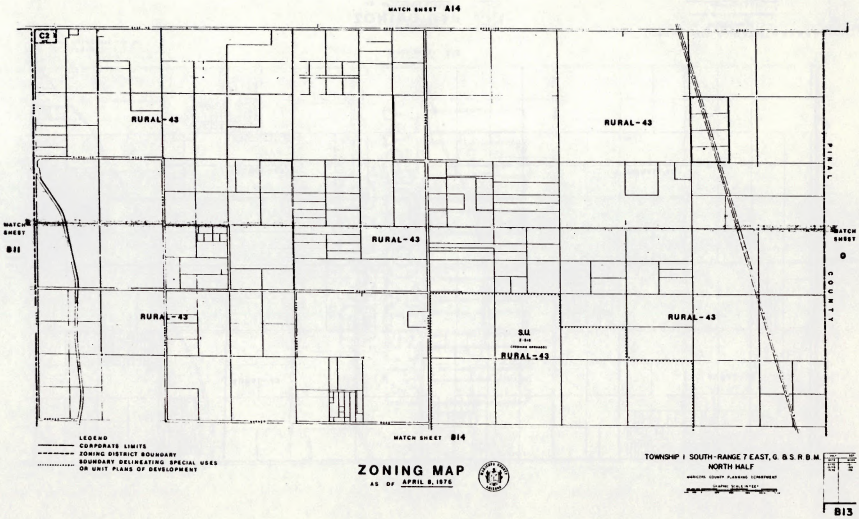
AS OF APRIL 5, 1978

TOWNSHIP 1 SOUTH - RANGE 6 EAST, G. & S. R.B.M.
NORTH HALF

MARICOPA COUNTY PLANNING DEPARTMENT

GRAPHIC SCALE IN FEET

B11


MATCH SHEET A14
C2
RURAL-43
RURAL-43
RURAL-43
RURAL-43
RURAL-43
S.U.
RURAL-43
MATCH SHEET B11
MATCH SHEET 0
FINAL COUNTY
MATCH SHEET B14
LEGEND
CORPORATE LIMITS
ZONING DISTRICT BOUNDARY
BOUNDARY DELINEATING SPECIAL USES OR UNIT PLANS OF DEVELOPMENT
ZONING MAP
AS OF APRIL 8, 1976
TOWNSHIP 1 SOUTH-RANGE 7 EAST, G. & S. R. B. M.
NORTH HALF
MARICOPA COUNTY PLANNING DEPARTMENT
B13

Reply to Comments
by

Maricopa County Planning Department

Letter dated February 23, 1977

1. Comment:

We have reviewed the Draft Environmental Impact Statement for the Coronado Project, prepared by the Bureau of Reclamation. Our only comment addresses the Kyrene Silver King 500hv Transmission Line. This route is in close proximity to several large scale developments which are currently under construction. These developments have been located on the enclosed Zoning Maps.

Response:

In a telephone conversation with Frank A. Schuma, principal planner for the Maricopa County Planning Department, two large scale developments were identified. The developments are known as "The Lakes" and "Dobson Ranch". Both "Dobson Ranch" and "The Lakes" are developments with recreation facilities with golf courses, tennis courts and water. Residential areas are occupied by families in the upper middle class and higher. In "The Lakes", homes range from $45,000 to $150,000 with most of the homes in the $60-$70,000 range. "Dobson Ranch" homes range between $40,000 and $60,000.

"The Lakes" is located on mile from the proposed transmission line route. "Dobson Ranch" is located one-half mile from the proposed transmission route. The area between "The Lakes" development and the transmission line route is primarily residential. It is that part of the transmission line that will be visible from "The Lakes" subdivision. There are only a few residential areas between "Dobson Ranch" and the proposed transmission line route. The transmission line will be visible from portions of the "Dobson Ranch" development, primarily those residences along the southern edge of the subdivision. The one-half mile distance, and the use of pole steel structure will minimize the impact.

NO TEXT ON PAGES 49 - 51

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION NINE
Two Embarcadero Center, Suite 530
San Francisco, California 94111

ARIZONA
CALIFORNIA
NEVADA
HAWAII
GUAM
AMERICAN SAMOA

IN REPLY REFER TO
9ED

February 24, 1977

Commissioner
Bureau of Reclamation
U.S. Department of the Interior
Washington, D. C. 20240

Dear Sir:

We have reviewed the Draft Environmental Impact Statement (DES 77-2) for the Coronado Project in the State of Arizona and have no specific comments to offer.

We appreciate this opportunity to review the subject Draft Statement.

Sincerely yours,

for F. E. Hawley
Regional Administrator

Reply to Comments by
U. S. Department of Transportation
Federal Highway Administration

Letter dated February 24, 1977

No replies are needed to this letter.

WYOMING
EXECUTIVE DEPARTMENT
CHEYENNE

ED HERSCHLER
GOVERNOR

February 24, 1977

United States Department of
the Interior
Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 427
Boulder City, Nevada 89005

RE: Draft Environmental Statement on the Corondo Project

Dear Mr. Lopez:

In compliance with the National Environmental Policy Act of 1969, Office of Management and Budget Circular A-95 (revised), and the Wyoming State Review Procedure, the State of Wyoming has completed its review of the above referenced environmental statement. Please note the attached comment.

Thank you for providing an opportunity to review this environmental statement. We are looking forward to receiving the final statement.

Yours, sincerely,

Ed Herschler

EH/trr

Attachment:

The Geological Survey of Wyoming

Serving Wyoming Since 1933

Director and State Geologist
Daniel N. Miller, Jr.

Advisory Board
D. L. Blackstone, Jr.
William H. Curry
A. Thomas Graham
Robert S. Houston
Bayard D. Rea

Staff Geologists
Roy M. Breckenridge
Gary B. Glass
Forrest K. Root
Alan J. VerPloeg

P.O. Box 3008, University Station, Laramie 82071
Telephone: (307) 742-2054 or 766-2286

MEMORANDUM

TO: Wyoming State Clearinghouse

FROM: Roy M. Breckenridge

SUBJECT: Review of Coronado Project 77-103 D

DATE: February 17, 1977

Although this project will not have any direct geological effects on Wyoming, it may provide an example with which we will soon be confronted: that is mining groundwater for energy production facilities. This particular project will withdraw from 13,424 to 22,608 acre feet of water annually from the Kaibab-Conconino aquifer with well life expectancies of 35 years or less.

The effects of large scale groundwater withdrawal from aquifers in semi-arid to arid western basins are not well understood. Some of the serious results can be:

- -- depression of groundwater table
- -- disruption of shallower aquifers
- -- ground subsidence and faulting
- -- permanent closure of porosity and permeability
- -- invasion by saline waters and brines
- -- interference with liquid fuels production
- -- reduction of surface stream flow

These problems present serious questions for decision makers and scientists alike in the western states. Perhaps policies and guidelines should start to be developed along these lines since aquifers and groundwater cross state boundaries.

Reply to Comments by
Wyoming Executive Department

Letter dated February 24, 1977

1. Comment:

1. The effects of large scale groundwater withdrawal from aquifers in semi-arid to arid western basins are not well understood. Some of the serious results can be:

   -- depression of groundwater table
   -- disruption of shallower aquifers
   -- ground subsidence and faulting
   -- permanent closure of porosity and permeability
   -- invasion by saline waters and brines
   -- interference with liquid fuels production
   -- reduction of surface stream flow

   These problems present serious questions for decision makers and scientists alike in the western states. Perhaps policies and guidelines should start to be developed along these lines since aquifers and groundwater cross state boundaries.

Response:

The environmental statement has attempted to identify the impacts from the Coronado Project on the various pariameters identified above to the extent they would happen in a localized area.

The Bureau of Reclamation shares the concern that the State of Wyoming has for the proper use of it's groundwater reserves and it and other western states to develop these suggested policies.

United States Department of the Interior

BUREAU OF OUTDOOR RECREATION
WASHINGTON, D.C. 20240

FEB 25

IN REPLY REFER TO:
D6427-LCO
DES 77-2

Memorandum

To: Commissioner, Bureau of Reclamation

From: Acting Director

Subject: Review of Draft Environmental Statement for Coronado Project, Arizona

In accordance with the request contained in your memorandum of January 14, 1977, we have reviewed the subject statement.

There appear to be no adverse impacts connected with the construction of the proposed power plant and coal haul railroad. With respect to the proposed powerline, it is difficult for us to determine the impact on recreation resources. On pages III-16 and III-28, the statement indicates that the proposed powerline routing would avoid areas of concentrated recreation and scenic drives through most of its length. This implies that there is a possibility that designated public parklands could be impacted.

Our major concern is that proper mitigation measures be taken in the event that parklands are traversed by the proposed powerline. If the parkland affected has received financial assistance under the Federal Land and Water Conservation Fund Act (Public Law 88-578 as amended), for either development or acquisition, then Section 6(f) of that Act would apply. Section 6(f) of the Act states, "No property acquired or developed with assistance under this Section shall, without the approval of the Secretary (of the Interior), be converted to other than public outdoor recreation uses." If the proposed powerline affects such a park, there should be consultation with Mr. Roland Sharer, Arizona Outdoor Recreation Coordinating Commission, 4433 North 19th Avenue, Suite 203, Phoenix, Arizona 85015. Mr. Sharer is the liaison officer for the Land and Water Conservation Fund in Arizona.

In highly scenic areas, particularly those visible to the public from roads, communities and parks, we recommend that the least intrusive design of tower structures be utilized.

Mary Lou Grier

Mary Lou Grier

Reply to Comments
by

Bureau of Outdoor Recreation

Letter dated February 25, 1977

1. Comment:

With respect to the proposed powerline, it is difficult for us to determine the impact on recreation resources. On pages III-16 and III-28, the statement indicates that the proposed powerline routing would avoid areas of concentrated recreation and scenic drives through most of its length. This implies that there is a possibility that designated public parklands could be impacted.

Response:

Item 12 on page III-16 and pages III-29 discuss the outdoor recreation environment and the impact of the transmission line on this segment of the environment. No impact on concentrated recreation is anticipated other than the visual impact of the transmission line crossings as shown in Figure III-5 Highway Influence. No "public parklands" are impacted.

2. Comment:

Our major concern is that proper mitigation measures be taken in the event that parklands are traversed by the proposed powerline. If the parkland affected has received financial assistance under the Federal Land and Water Conservation Fund Act (Public Law 88-578 as amended), for either development or acquisition, then Section 6(f) of that Act states, "No property acquired or developed with assistance under this Section shall, without the aproval of the Secretary (of the Interior), be converted to other than public outdoor recreation uses." If the proposed powerline affects such a park, there should be consultation with Mr. Roland Sharer, Arizona Outdoor Recreation Coordinating Commission, 4433 North 19th Avenue, Suite 203, Phoenix, Arizona 85015. Mr. Sharer is the liaison officer for the Land and Water Conservation Fund in Arizona.

Response:

No public parklands are traversed by the proposed powerlines or substations.

3. Comment:

In highly scenic areas, particularly those visible to the public from roads, communities and parks, we recommend that the least intrusive design of tower structures be utilized.

Response:

The proposed transmission line corridors will impact scenic highways as shown in Figure III-5 Highway Influence. Although these crossings are not on public lands, the company has assured us that nonspecular conductors will be used at these crossings, in conjunction with less massive tower designs such as those shown in Figure I-18 and I-19.

United States Department of the Interior

BUREAU OF MINES
2401 E STREET, NW.
WASHINGTON, D.C. 20241

IN REPLY REFER TO:

February 28, 1977

DES 77-2

Memorandum

To: Commissioner , Bureau of Reclamation

Through: Assistant Secretary--Energy and Minerals

From: Director, Bureau of Mines

Subject: Draft environmental statement, Coronado Project, Arizona

Thank you for the opportunity to review your draft environmental statement for the Salt River Project's Coronado generating station at St. Johns, Arizona, and associated facilities. The proposal calls for construction and operation of a 1050-MW coal-fired electric generating station, 500-kV and 230-kV transmission lines, a 42.5-mile railroad spur for transport of coal, well fields and pipelines to obtain water for the station, and a quarry to provide limestone for control of emissions. Initially, coal would be shipped to the station from the McKinley mine northwest of Gallup, New Mexico, while the Salt River Project continues to seek a long-term source of coal. (Impacts of coal mining at the McKinley mine are described in the FES for the Cholla Project and are not discussed in the Coronado statememt). Ash and wastes from plant operation would be disposed on the site.

The purpose of the Coronado Project deserves special mention because the electricity generated would meet future energy needs of the "Eastern Mining Area," including several large porphyry copper mines and processing facilities near Miami, Superior, and Hayden, as well as power requirements of the Phoenix metropolitan area. Thus, the project would directly benefit continued mineral industry operations in part of one of the Nation's premier mining regions.

Mineral resources in the vicinity of project facilities are adequately described in Section II of the statement although the information is hard to find under Geologic Resources and Land Ownership and Use headings. However, the only mention of impacts of the project facilities on these mineral resources appears under Alternatives to the Proposed Action in discussion of land ownership and use in relation to alternate alignment two of the coal haul

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

railroad on pages II-218, 219 and 220. We believe the significance of the commitment of known or potential mineral resources underlying the nearly 4,000 acres occupied by the project should be specifically discussed.

We are pleased that the statement recognizes that the transmission corridors lie in a highly mineralized area with many mineral claims or patents. The statement notes that towers or substations might have to be moved to permit mineral recovery, although we hope the lines can be located so that relocation will not become necessary. When final transmission routes have been determined, the Bureau of Mines would be glad to assist the Bureau of Reclamation in selection of tower and substation sites that would minimize impact on minerals.

Acting Director

Reply to Comments by
U. S. Bureau of Mines

Letter dated February 28, 1977

1. Comment:

   1. Mineral resources in the vicinity of project facilities are adequately described in Section II of the statement although the information is hard to find under Geologic Resources and Land Ownership and Use headings. However, the only mention of impacts of the project facilities on these mineral resources appears under Alternatives to the Proposed Action in discussion of land ownership and use in relation to alternate alignment two of the coal haul railroad on pages II-218, 219 and 220. We believe the significance of the commitment of known or potential mineral resources underlying the nearly 4,000 acres occupied by the project should be specifically discussed.

   Response:

   Section II.C.3.f. has been expanded to show the impact of project facilities on mineral resources of the area.

STATE OF NEW MEXICO

HEALTH and SOCIAL SERVICES department

February 28, 1977

ENVIRONMENTAL IMPROVEMENT AGENCY
Planning & Regulations Development
PO Box 2348 - Santa Fe, NM
(505) 827-5271 Ext. 330

Manuel Lopez, Regional Director
U.S. Department of the Interior
Bureau of Reclamation, Lower
Colorado Region
PO Box 427
Boulder City, Nevada 89005

Dear Mr. Lopez:

We have reviewed the Draft Environmental Impact Statement for the Coronado Project.

Our comments are as per the attachment.

Yours Sincerely,

Dick Burgard

Dick Burgard
Environmental Program Manager

DB:cma

State of New Mexico
HEALTH and SOCIAL SERVICES DEPARTMENT
Environmental Improvement Agency - Air Quality Division

MEMORANDUM

To: Dick Burgard, Env. Program Manager, Planning Regulation & Development Division

Date: February 18, 1977

From: Bill Bennett, Env. Program Manager, Air Quality Division
Program Planning & Development Section

THRU: Ken Hargis, Chief, Air Quality Division

Subject: USDI Draft Environmental Statement - Coronado Project, Arizona

Subject draft environmental statement (DES) has been reviewed in some detail with regard to air quality impacts (in New Mexico) by Jim Smith (Meterology) and myself. While the DES addresses environmental impacts from the total project (which includes the generating station, wellfields, coal-haul railroad, limestone source component, and transmission lines) our concern was only with the air quality impacts of the generating station itself. This is the only component of the project (except for the coal which is mined in New Mexico) which we anticipate having any impact on New Mexico's air quality.

Pages II-109 through II-118 are concerned with ambient air quality and estimates of potential SO_2 and other air pollutant concentrations based on full plant operation. Jim's extrapolation of these data to the New Mexico-Arizona state line indicates that in the vicinity of the New Mexico state line and the town of Red Hill, concentrations of SO_2 averaged over a 24-hour period will be approximately 43 micro-grams/cubic meter, which is equivalent to 0.02 ppm. This represents 20% of the New Mexico 24-hour average ambient air quality standard for SO_2. Three-hour average concentrations of SO_2 at the state line are expected to be as high as 209-216 micro-grams/cubic meter, which is equivalent to 0.1 ppm - the New Mexico 24-hour average ambient standard.

These concentrations do not exceed significant deterioration criteria, but will, nevertheless, represent a significant increase in air pollutant concentrations primarily in the Southwestern Mountains - Augustine Plains Intrastate and to a lesser extent (based upon wind rose data) in the Four Corners Interstate Air Quality Control Regions. More specific estimates of the impact of this power plant on these two AQCR's are not possible without extensive modeling studies, as the DES did not address impacts on New Mexico's air quality. Jim found the meteorological measurements and calculations to be standard.

Although the DES indicates that ambient air quality standards (both national and Arizona's) will not be exceeded it does not specifically address the subject of "significant deterioration".

BB:el

cc: Bruce Nicholson, Meteorology Section, AQD
Jim Smith, " "

HSS 050A Form Revised 9/76

Reply to Comments by
State of New Mexico
Environmental Improvement Agency

Letter dated February 28, 1977

1. Comment:

   1. These concentrations do not exceed significant deterioration, but will, nevertheless, represent a significant increase in air pollutant concentrations primarily in the Southwestern Mountains - Augustine Plains Intrastate and to a lesser extent (based upon wind rose data) in the Four Corners Interstate Air Quality Control Regions. More specific estimates of the impact of this power plant on these two AQCR's are not possible without extensive modeling studies, as the DES did not address impacts on New Mexico's air quality. Jim found the meteorological measurements and calculations to be standard.

   Response:

   The Environmental Improvement Agency is correct in stating that there will be an increase in air pollutant concentrations, particularly sulfur dioxide. Table II-2 shows the maximum 3-hour and 24-hour concentrations of sulfer dioxide up to 50 kilometers from the plant site in all directions. The attached map plots the maximum 3-hour concentrations as they are expected to occur over New Mexico. Maximum expected 24-hour concentrations can be derived by dividing the 3-hour concentration values by 5.

2. Comment:

   Although the DES indicates that ambient air quality standards (both national and Arizona's) will not be exceeded it does not specifically address the subject of "significant deterioration".

   Response:

   The environmental statement does not address the issue of "significant deterioration" because it does not apply to the Coronado Generating Station. Since construction of the generating station began before June 1, 1975 (actually started in 1974), it is exempt from the Prevention of Significant Deterioration of Air Quality Regulations (40CFR52.21). The attached letter, dated February 3, 1977, from the U. S. Environmental Protection Agency shows their concurrence in this exemption.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
100 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

FEB 8 1976

Salt River Project
P.O. Box 1980
Phoenix, Arizona 85001

PLA 13-4-1

Attn: Mr. Alfred Q. Colton
Supervisor, Environmental Division

Dear Mr. Colton:

This is in response to your December 8, 1975 letter regarding the status of construction on the Coronado Generating Station and your contention that the project is exempt from EPA's Prevention of Significant Deterioration of Air Quality (PSD) Regulations (40 CFR 52.21).

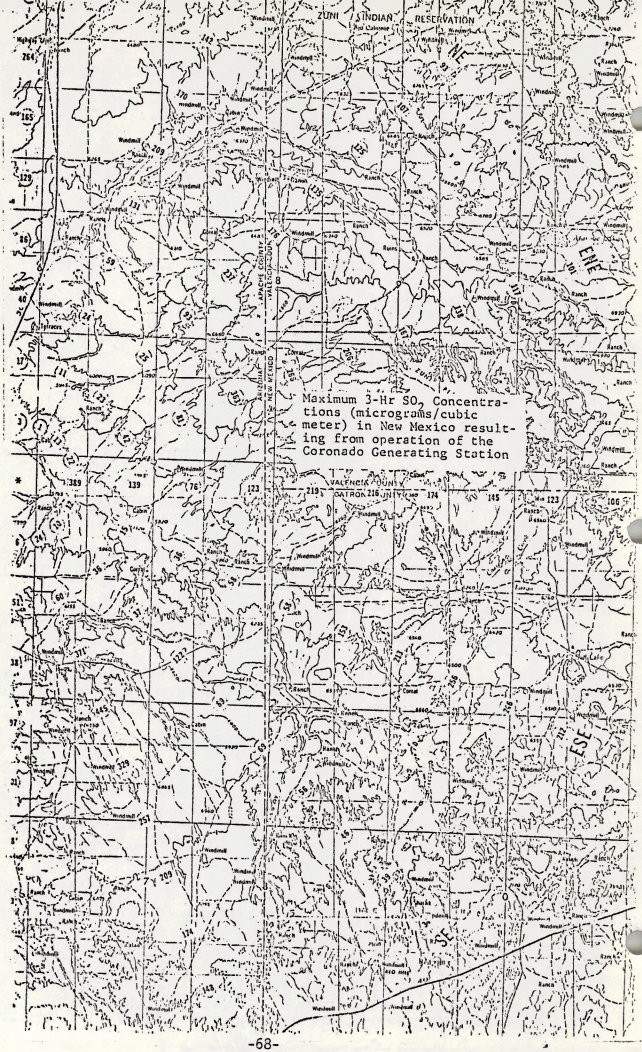
We have reviewed the documentation submitted and agree that both the awarding of contracts and on-site construction was begun prior to June 1, 1975, the effective date of the PSD regulation. We therefore concur that the Coronado Generating Station is exempt from 40 CFR 52.21.

We appreciate your cooperation on this matter and would like to request that you notify this office of any future projects that might be subject to our regulations.

If you have any questions regarding future projects, please feel free to call Stan Zwicker of my staff at telephone number 415-556-8909.

Sincerely,

Frank M. Covington
Director, Air & Hazardous
Materials Division



Maximum 3-Hr SO_2 Concentrations (micrograms/cubic meter) in New Mexico resulting from operation of the Coronado Generating Station

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P. O. BOX 2711
LOS ANGELES, CALIFORNIA 90053

SPLED-E

1 March 1977

Mr. Clifford I. Barrett, Acting Commissioner
United States Department of the Interior
Bureau of Reclamation
Washington, D.C. 20240

Dear Mr. Barrett:

This is in response to a letter dated 14 January 1977 from your office which requested review and comment on the draft environmental statement for the Coronado Project.

The proposed plan does not conflict with existing or authorized plans of the Corps of Engineers.

If any filling in or other construction work is required in the crossing of the Little Colorado River (reference paragraph 4a, page II-141), a permit will be required from the U.S. Army Corps of Engineers. We suggest that Mr. Charles M. Holt, Chief, Navigation Branch, Construction Operations Division, telephone (213) 688-4933, be contacted regarding requirements for filing permit applications.

Thank you for the opportunity to review and comment on the EIS.

Sincerely yours,

Taichi L. Nishihara

TAICHI L. NISHIHARA
Acting Chief, Engineering Division

Reply to Comments by
U. S. Department of the Army
Corps of Engineers

Letter dated March 1, 1977

No replies to this letter are needed.

STATE OF NEW MEXICO

STATE PLANNING OFFICE

GRACIELA (GRACE) OLIVAREZ
STATE PLANNING OFFICER

GREER BUILDING
505 DON GASPAR
SANTA FE, 87503
(505) 827-2073

JERRY APODACA
GOVERNOR

March 1, 1977

Mr. Manuel Lopez
Bureau of Reclamation
Department of the Interior
P.O. Box 427
Boulder, Colorado 89005

Dear Mr. Lopez:

We have reviewed the Draft Environmental Statement for the Coronado Project. We have also distributed copies of this statement to other state agencies and are enclosing comments for the Department of Game and Fish and the Energy Resources Board.

We wonder at the advisability of proceeding with the construction of the power plant with an agreement for coal for only the first 18 months of operation. We would, of course, be interested in the environmental implications of the development of New Mexico coal mines as the energy source for the Coronado project.

Thank you for the opportunity to comment.

Sincerely,

Kate Wickes

Kate Wickes, Deputy Director
Division of Natural Resources

KW:anne

Enclosures

State of New Mexico

GOVERNOR
JERRY APODACA

DIRECTOR AND SECRETARY
TO THE COMMISSION
WILLIAM S. HUEY

DEPARTMENT OF GAME AND FISH

STATE CAPITOL
SANTA FE
87503

STATE GAME COMMISSION

F. URREA, JR., CHAIRMAN
ALBUQUERQUE

ROBERT H. FORREST
CARLSBAD

J. W. JONES
ALBUQUERQUE

ROBERT P. GRIFFIN
SILVER CITY

DR. FRANKLIN B. ZECCA
GALLUP

February 18, 1977

Ms. Kate Wickes
Division of Natural Resources
505 Don Gaspar
Greer Building
Santa Fe, New Mexico 87503

Dear Ms. Wickes:

We have reviewed the Draft Environmental Impact Statement, Coronado Project, by the Bureau of Land Management and United States Forest Service, and wish to make the following comments.

As the proposed project is located in Arizona with the exception of the coal source which is in New Mexico, impacts upon wildlife in this State will be negligible. Therefore, we have no comments to make.

Sincerely yours,

Gerald Gates

Gerald H. Gates
Chief of Planning

STATE OF NEW MEXICO

ENERGY RESOURCES BOARD

POST OFFICE BOX 2770
SANTA FE 87501
TELEPHONE: (505) 827-2146

JERRY APODACA
GOVERNOR

February 21, 1977

Miss Kate Wicks
Deputy Director
Natural Resources
State Planning Office
505 Don Gaspar
Santa Fe, New Mexico 87501

Dear Miss Wicks:

REFERENCE: "DRAFT ENVIRONMENTAL STATEMENT - CORONADO PROJECT"

The Energy Resources Board has reviewed the above reference document, and at this time it is our opinion that this project will not adversely affect the State of New Mexico, as it relates to the area of responsibility of this agency.

We have noted that coal is to be delivered to the Coronado Station via rail from the existing McKinley Mine, which is located about ten miles North of Gallup. The McKinley Mine has previously received approval on an Environmental Impact Statement in 1975, and the only possible adverse affect would be that New Mexico would need the coal for its own purposes. At this point, it is difficult to make this determination.

If you need any additional information, please feel free to call on me or my staff.

Sincerely,

Fred L. O'Cheskey

FRED L. O'CHESKEY
Acting Administrator

FLO:iao

Reply to Comments by
State of New Mexico
State Planning Office

Letter dated March 1, 1977

1. Comment:

   1. We wonder at the advisability of proceeding with the construction of the power plant with an agreement for coal for only the first 18 months of operation. We would, of course, be interested in the environmental implications of the development of New Mexico coal mines as the energy source for the Coronado project.

   Response:

   The comment is well taken. Ideally, SRP would have preferred to have secured firm fuel supply before beginning construction of the generating station. However, the fuel source could not be confirmed and construction had to begin to meet scheduled delivery dates. When a final selection of a fuel source is made, it will be subject to environemntal laws and regulations and subsequent scrutiny depending on when it is located.

   The appended letters from the New Mexico Department of Game and Fish and the Energy Resources Board do not require further reply.

ARIZONA DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

206 South Seventeenth Avenue Phoenix, Arizona 85007

RAUL H. CASTRO
Governor

WILLIAM A. ORDWAY
Director

OSCAR T. LYON, JR.
State Engineer

March 2, 1977

Mr. Manuel Lopez, Jr.
Regional Director
United States Department
of the Interior
Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 427
Boulder City, Nevada 89005

Re: Draft Environmental Statement
INT DES 77-2
Coronado Project

Dear Mr. Lopez:

In response to your letter of January 14, 1977, we have reviewed the Draft Environmental Statement for the Coronado Project prepared by the Bureau of Reclamation.

The Arizona Department of Transportation does have some highway construction and improvement projects planned which are in the vicinity of the proposed power transmission lines, but they should pose no significant impact on your project. For your information, we are attaching a copy of pertinent pages from the current Arizona's Five-Year Transportation Construction Program which show projects in our Highway Districts I, IV, and VII which may be of interest to you. Also shown are the districts through which the Coronado Project features pass.

We note it will be necessary for the Coronado Project developer to obtain several encroachment permits from the Arizona Department of Transportation. This includes encroachment permits for the 500KV transmission lines to pass over State Highways 377, 77, and 177 as well as U.S. Highways 666, 60, and 180 as shown in Figure III-5. It also includes encroachment permits to run the wellfield water lines under U.S. Highway 666 to the Coronado Plant site and under U.S. Highway 180 at Middle Wellfield 1 and Concho Wellfield 2 as shown on Figure 1-14.

The other encroachment permit necessary is the permission to construct the Power Plant Spur Coal Haul Railroad across U.S. Route 666 to the Coronado Generating Station Site north of St. Johns, Arizona as shown on Figure 1-15.

In regard to the encroachment permits for the wellfield water lines, transmission lines, and the spur railroad to be constructed in the vicinity of St. Johns location of the Coronado Project, the direct contact will be Mr. H. M. Osmus, District Engineer, District VII, Arizona Department of Transportation, Highway 60, Claypool, Drawer AD, Miami, Arizona 85539; telephone (602)425-7638. The District VII office has been in contact with the Salt River Project and notified them that the Arizona Department of Transportation will not approve an encroachment permit for the railroad crossing of Highway 666 without some consideration being given to a grade separation at the crossing. The Salt River Project, in this Draft Environmental Statement, has proposed an at-grade railroad crossing of Highway 666. The Arizona Department of Transportation feels that a grade separation should be considered due to the hazards involved in an at-grade crossing at this location. Coordination involving the plans should be with our District VII Engineer.

We appreciate the opportunity to review and comment on this Coronado Project Draft Environmental Statement and if we may be of further assistance, please let us know.

Yours very truly,

OSCAR T. LYON, JR.
State Engineer

James E. Dorre

JAMES E. DORRE, Manager
Environmental Planning Services

JED:ADG:jh

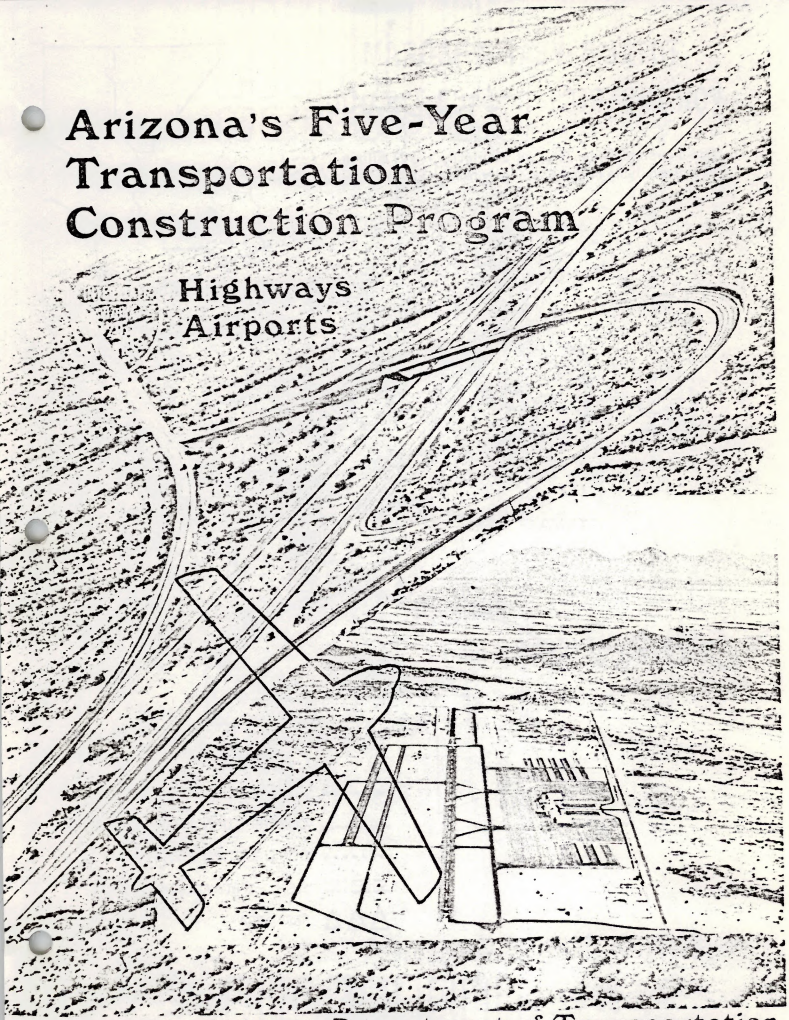
Attachments

cc: H. M. Osmus, Engineer,
District VII

Utility & Railroad Engineering Services

Arizona's Five-Year Transportation Construction Program

Highways
Airports

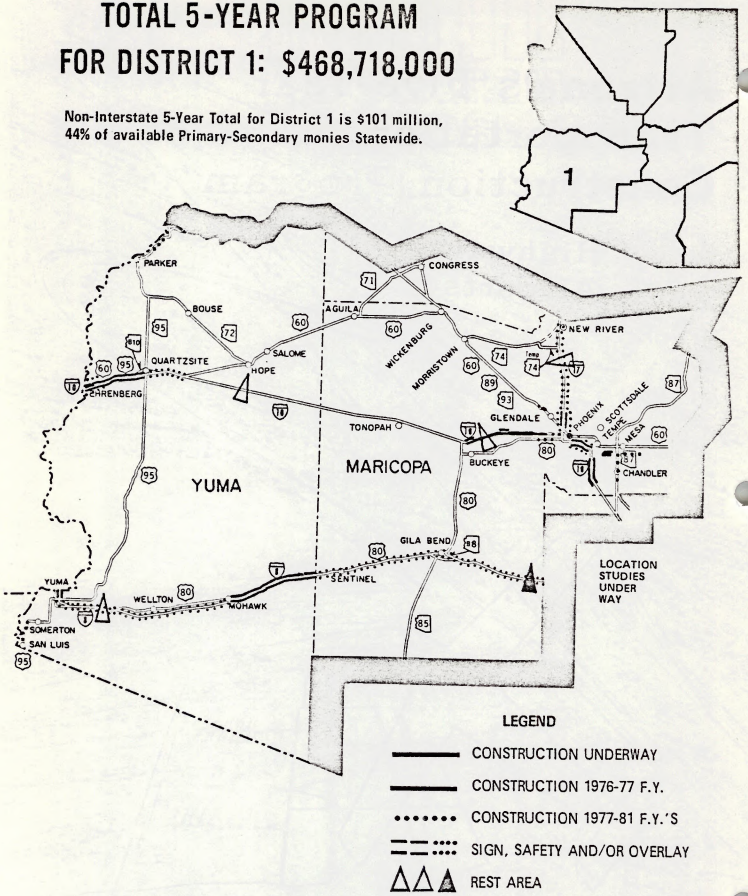


FISCAL 1976-77 EDITION

Arizona Department of Transportation

TOTAL 5-YEAR PROGRAM FOR DISTRICT 1: $468,718,000

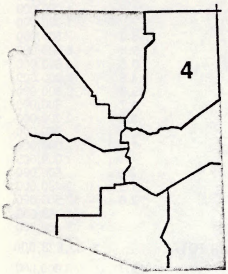
Non-Interstate 5-Year Total for District 1 is $101 million, 44% of available Primary-Secondary monies Statewide.



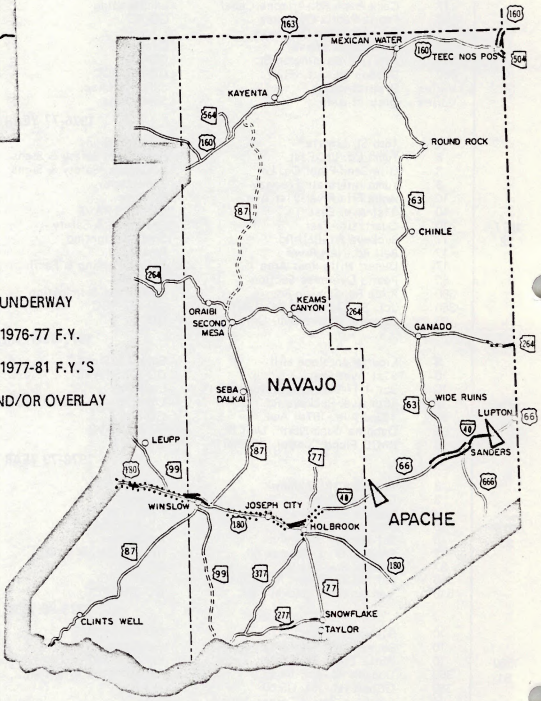
DISTRICT 1

	Route	Location	Type of Work	Length	Est. Cost
1976-77	8	Yuma Bridge-Ave. 2E	Signs	3.0	$ 180,000
	8	Mohawk-Maricopa Co. Ln.	Resurface & Safety	24.5	4,000,000
	8	Table Top Rest Area	Ramps, Parking & Facil.		1,300,000
	10	Baseline Rd.-Williams Fld. Rd.	Overlay	5.0	500,000
	10	Oglesby Rd.-Pennsylvania Rd.	BC-AC-PAVE	9.8	5,000,000
	10	Agua Fria River Bridge	Bridge & Approaches	0.5	4,500,000
	10	Agua Fria River-91st Ave.	GD-Structures	4.5	18,000,000
	10	Ehrenberg-Quartzsite	Resurface & Safety	15.5	3,300,000
	10	Jct. I-17-Salt River Bridge	Median & Safety	1.7	800,000
	17	Jct. I-10-19th Ave.	Median & Safety	3.8	2,200,000
	17	Camelback Rd.-Arizona Canal	Landscaping		950,000
	60	Peoria-Peoria Overpass	GD-AC	1.4	2,000,000
	60	Grand Avenue Overpass			1,000,000
	80	4th Avenue, Yuma	Overlay	3.9	500,000
	143	Jct. I-10-Washington St.	GD-AC	1.3	2,400,000
	360	Dobson Rd.-Jct. SR 87	GD-STR-PCC	2.0	12,500,000
	Varies	District-wide	Safety & Misc.		1,788,000
	Varies	District-wide	Seal Coats		1,350,000
			1976-77 YEAR TOTAL		**$ 62,628,000**
1977-78	8	16th St.-Ligurta	Safety & Signs	28.7	3,000,000
	8	Yuma Co. Ln.-East	Resurface, Safety & Signs	16.0	3,400,000
	8	Gila Bend-Pinal Co. Ln.	Resurface, Safety & Signs	27.9	5,500,000
	8	Yuma Interstate Freeway	Landscape	3.6	1,150,000
	10	Agua Fria River-91st Ave.	BC-Pave	4.5	5,000,000
	10	91st Ave.-East	GD-STRS-PAVE	8.5	60,000,000
	10	Quartzsite-East	Resurface & Safety	10.1	2,800,000
	17	Buckeye Rd.-Bell Rd.	Signs & Lighting	16.0	2,350,000
	17	Bell Rd.-New River	Resurface	18.6	4,500,000
	17	Desert Hills Rest Area	Extend Parking & Facil.		2,000,000
	60	Peoria Overpass Section	GD-S-OP	2.3	2,700,000
	360	Price Rd.-Dobson Rd.	Landscape & Irrigation	1.0	550,000
	360	Jct. SR 87-Gilbert Rd., Unit I	GD-STR-PCC	1.5	7,500,000
	95	Osborne Wash-North, Unit I	GD	3.0	2,500,000
			1977-78 YEAR TOTAL		**$102,950,000**
1978-79	8	Ligurta-Antelope Hill	Safety & Signs	16.2	1,750,000
	10	91st Ave.-East	GD-STRS-PAVE		90,000,000
	10	Jct.-I-17-Salt River Bridge	Lighting	1.2	390,000
	17	19th Ave.-Buckeye Rd.	Lighting	1.0	250,000
	80	123rd Ave.-107th Ave.	GD-S	2.0	1,700,000
	95	Osborne Wash-North, Unit II	GD-AC PAVE	6.0	3,400,000
	93	RWCD Flood Control Channel	BRG		450,000
			1978-79 YEAR TOTAL		**$ 97,940,000**
1979-80	8	Antelope Hill-Mohawk	Safety	18.2	2,200,000
	8	Gila Bend-West	Safety	17.2	2,200,000
	8	Ligurta Rest Area	Facilities		1,200,000
	10	91st Ave.-East	GD-STRS-PAVE	8.5	65,000,000
	10	Bullard Rd.-107th Ave.	Landscape	5.0	1,300,000
	17	Encanto Blvd.-Thomas Rd.	Widen Rdwy. & Strs.	0.7	8,500,000
	87	Denver St.-Knox Rd.	GD-AC	2.0	3,400,000
	360	Jct. SR 87-Gilbert Rd., Unit II	GD-STR-PCC	1.5	8,500,000
	510	Van Buren St.-Buckeye Rd.	GD-STRS-PCC	1.2	20,000,000
			1979-80 YEAR TOTAL		**$112,300,000**
1980-81	10	91st Ave.-East	GD-STRS-PAVE		70,000,000
	10	Bouse Wash Rest Area	Facilities		1,700,000
	10	White Tanks Rest Area	Ramps, Parking, Facil.		2,000,000
	360	Dobson Rd.-Jct. SR 87	Landscape & Irrigation	2.0	900,000
	360	Gilbert Rd.-Jct. US 60	GD-S	4.0	15,000,000
	95	San Luis-Carr's Corner, Unit I	GD	11.6	3,300,000
			1980-81 YEAR TOTAL		**$ 92,900,000**

TOTAL 5-YEAR PROGRAM FOR DISTRICT 4: $41,548,350

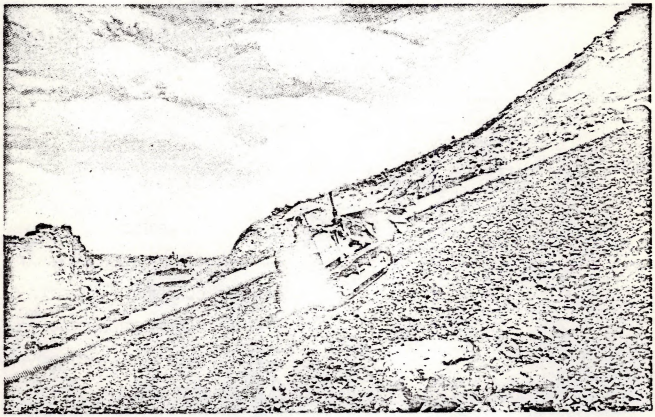


Non-Interstate 5-Year Total for District 4 is $9.3 million, 4% of available Primary-Secondary monies Statewide.

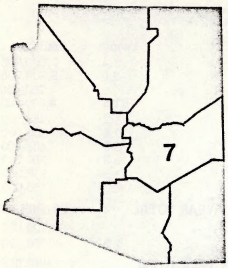


DISTRICT 4

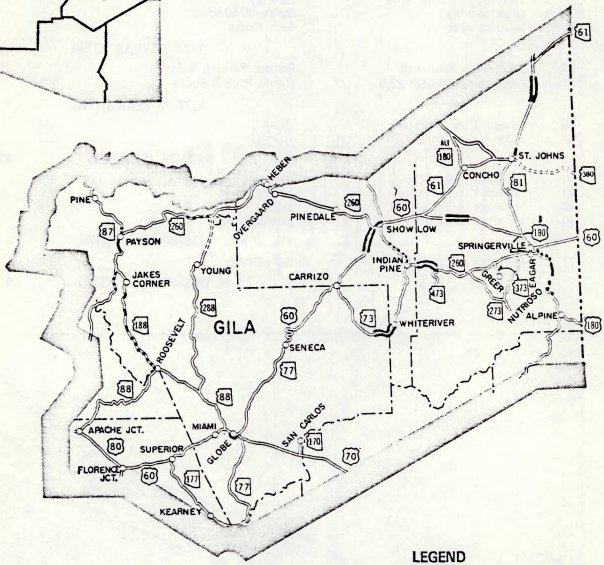
	Route	Location	Type of Work	Length	Est. Cost
	40	Winslow Interstate	BC-Pave	8.4	$ 7,200,000
	40	Holbrook Interstate	BC-Pave	6.6	5,700,000
	40	Sunshine RR Overpass	RR Overpass		750,000
1976-77	40	McCarrol-Cedar Point	Resurface & Safety	11.5	4,500,000
	160	Tec Nos Pos-4 Corners	Overlay	4.2	250,000
	277	Cottonwood Wash Bridge	Bridge	0.6	300,000
	277	Pulp Mill Spur-East	Overlay	8.0	480,000
	504	Tec Nos Pos-State Line	Overlay	5.8	350,000
	Varies	District-wide	Safety & Misc.		918,350
	Varies	District-wide	Seal Coats		150,000
			1976-77 YEAR TOTAL		**$20,598,350**
1977-78	40	Dead River Rest Area	Ramps, Parking & Facil.		1,700,000
	377	Forest Boundary-MP 22.5	Cattle Pass & Fence	16.2	200,000
			1977-78 YEAR TOTAL		**$ 1,900,000**
1978-79	40	Joseph City Interstate	GD-AC	4.1	9,600,000
	264	Summit-New Mexico St. Ln., Unit II	GD-AC	5.7	1,800,000
			1978-79 YEAR TOTAL		**$11,400,000**
1979-80	40	Winslow-Joseph City	Safety	5.0	550,000
	40	Joseph City-Holbrook	Safety	6.0	700,000
	40	Holbrook-Apache Co. Ln.	Safety	5.8	700,000
	40	Winslow Interstate	Landscaping		900,000
			1979-80 YEAR TOTAL		**$ 2,850,000**
1980-81	77	Holbrook S.-Jct. SR 377	GD-STR-Pave	3.0	4,800,000
			1980-81 YEAR TOTAL		**$ 4,800,000**



TOTAL 5-YEAR PROGRAM FOR DISTRICT 7: $41,478,350



Non-Interstate 5-Year Total for District 7 is $41.5 million, 18% of available Primary-Secondary monies Statewide.

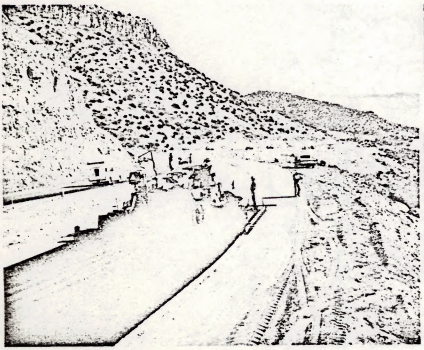


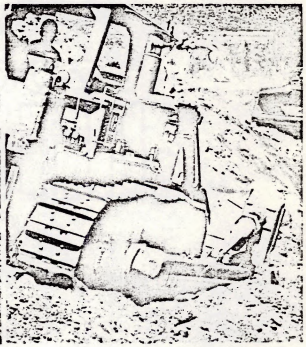
LEGEND

- CONSTRUCTION UNDERWAY
- CONSTRUCTION 1976-77 F.Y.
- CONSTRUCTION 1977-81 F.Y.'S
- SIGN, SAFETY AND/OR OVERLAY
- REST AREA

DISTRICT 7

	Route	Location	Type of Work	Length	Est. Cost
1976-77	60	Show Low Streets	Curb, Gutter, Widen	1.4	$ 1,000,000
	260	McNary-Jct. SR 473	Overlay	8.0	400,000
	60	Foresdale-Show Low	Overlay & Widen	7.6	550,000
	666	Carrizo Wash-Zuni Section	Overlay	8.4	650,000
	77	MP 331-Whiteriver	Overlay	7.0	650,000
	87	Oxbow Hill-Payson, N.B.	GD-AC	3.9	2,800,000
	188	Apache Jct.-Maricopa Co. Ln.	Overlay	5.3	100,000
	180	Nelson Reservoir Section	GD-AC	5.2	3,100,000
	180	St. Johns W.C.L.	Culvert		100,000
	666	Little Colorado River Bridge	Bridge		300,000
	666	Carrizo Wash Bridge	Bridge	0.4	200,000
	Varies	District-wide	Safety & Misc.		878,350
	Varies	District-wide	Seal Coats		650,000
			1976-77 YEAR TOTAL		**$11,378,350**
1977-78	87	Jct. SR 260-North	Curb & Widen	0.6	600,000
	180	Picnic Hill Section	GD-AC	4.0	3,300,000
	188	Rock Creek-Ash Creek	GD	4.0	3,000,000
			1977-78 YEAR TOTAL		**$ 6,900,000**
1978-79	87	Ord Mine-SR 188-Unit I	GD-AC	2.6	3,200,000
	180	Nutrioso Section	GD-AC	1.7	2,000,000
	260	Lakeside Streets	GD-AC	1.6	2,000,000
			1978-79 YEAR TOTAL		**$ 7,200,000**
1979-80	260	Colcord Rd.-Jct. Rim Rd.	GD-AC	4.9	3,900,000
	188	Rock Creek Section	GD	4.0	3,300,000
			1979-80 YEAR TOTAL		**$ 7,200,000**
1980-81	260	Christopher Creek-Colcord Rd.	GD-AC	3.8	3,300,000
	260	Lakeside-Pinetop	GD-AC	2.6	2,100,000
	188	Roosevelt-Rock Creek	GD	4.0	3,400,000
			1980-81 YEAR TOTAL		**$ 8,800,000**





Reply to Comments
by

Arizona Department of Transportation

Letter dated March 2, 1977

1. Comment:

"We note it will be necessary for Coronado Project developer to obtain several encroachment permits. . ."

Response:

Encroachment permits will be handled by the company right-of-way division prior to construction. The detailed coordinating plans required by Federal agencies prior to issuance of easements or permits will reflect the need for obtaining encroachment permits.

2. Comment:

The District VII office has been in contact with the Salt River Project and notified them that the Arizona Department of Transportation will not approve an encroachment permit for the railroad crossing of Highway 666 without some consideration being given to a grade separation at the crossing. The Salt River Project, in this Draft Environmental Statement, has proposed an at-grade railroad crossing of Highway 666. The Arizona Department of Transportation feels that a grade separation should be considered due to the hazards involved in an at-grade crossing at this location. Coordination involving the plans should be with our District VII Engineer.

Response:

Salt River Project is aware of the Department of Transportation's interest in the type of railroad crossing at Highway 666. Consideration was given to a grade separation. Salt River Project will be discussing this question further with the Department of Transportation.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

OFFICE OF THE SECRETARY

WASHINGTON, D.C. 20201

MAR 7 1977

Office of the Regional Director
Bureau of Reclamation
P.O. Box 427
Boulder City, Nevada 89005

Gentlemen:

Thank you for the opportunity to review the ~~draft~~ Environmental Impact Statement concerning the Coronado Project, St. John's, Arizona.

The description of the action contained in the summary does not state what the Federal Government is being asked to do. The impression given is that the Federal action is to provide additional electricity to the southern portion of the State of Arizona.

The extensive Federal involvement, with respect to environmental review and consideration, from the inception of this project is not evident from the discussion contained in the section on Background and History (I.B.). The reader is left with a feeling that the Federal Government has been boxed into a situation whereby the only alternative is to grant the right-of-way easements for transmission lines and coal transportation or else the power plant will be totally useless. While this may or may not be entirely so, more explanation needs to be provided to reflect exactly what has occurred during the planning, including changes or alterations of routes due to circumstances expanding or limiting alternatives. Finally, the decision of the "no action" alternative suffers from a lack of explanation as to why we have reached this point at the end of a one way street. Also, is there no conceivable way that the Coronado station could ever operate under this alternative, even if it were under somewhat more difficult circumstances?

The DEIS identifies about 500 housing units that will be available for the projected population increase due to the project. The final EIS should discuss how the balance of housing will be provided. We are concerned that sufficient planning has been undertaken to insure that

workers will have safe housing with adequate sanitary services.

The increase in population in St. John's will result in the addition of 470 students in the elementary and high schools. The elementary schools in particular have limited expansion capability available but not enough to handle the anticipated increase. The final EIS should discuss the measures that will be taken to deal with the anticipated problems at the elementary level. We feel that there should be greater discussion of the availability and plans to provide for educational staff and facilities.

Additional information should be included in the final EIS with respect to medical assistance and health facilities for the population in St. John's. The document states that the Salt River Project is negotiating for the provision of medical services at St. John's; however, alternative plans for health care should be given in the final EIS in the event that SRP does not provide such services.

We feel there is inadequate exploration of the potential indirect effects on the community as related to such social parameters as economic impact on food availability for those on a fixed income.

The construction and design of the generating plant per se as related to air emissions uses technology which will result in ambient air quality well within acceptable standards necessary to protect public health.

There is no doubt but that the Department of the Interior has designed the operations of the plant so as to utilize minimum quantities of water. However, the potential growth and urbanization of the surrounding areas as an indirect result of this power plant may, indeed, increase water demands beyond acceptable limits. The final EIS should explore in more detail the potential contamination of aquifers by recharge using plant effluent.

In addition to the comments above, we are including the comments from Ms. Arabella Martinez, the Assistant Secretary Designate for the Office of Human Development.

Sincerely,

Charles Custard
Director
Office of Environmental Affairs

Enclosure

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20201

FEB 24 1977

Office of Environmental Affairs, DHEW
200 Independence Avenue, S. W.
Room 524F2 South Portal
Washington, D. C. 20201

Attention: Ms. Judy Kripner

We have reviewed the Draft Environmental Impact Statement for the Coronado Project in Arizona, and have the following comments and recommendations:

A. While The Impact Statement indicates the Project will meet all applicable air pollution standards, no mention is made about what would be done if the Project fails to meet these standards. We think the safeguards and plans for this possibility should be presented.

B. As the Impact Statement reviews the adverse impacts on the socio-economic environment, they describe both the present relative poverty and depravation of this county as second worst in the State of Arizona, and also the permanent employment which will result because of the project. With such a high rate of present unemployment in the area, we think the Project should be required to describe and implement a plan which will address these various socio-economic environmental influences, including a plan to reduce the unemployment prior to moving large numbers of people into the area for the purpose of employment. In addition, since the project is located in the midst of a large Indian population, including other minorities, we think an affirmative action plan should be included.

C. Finally, due to the fact that the plant construction site is virtually surrounded on all sides by Indian reservation lands, we would defer any further comments about the project impact to the responsible Tribal officials of the surrounding tribes.

This is the extent of our comments.

Sincerely,

Arabella Martinez

Arabella Martinez
Assistant Secretary - Designate
for Human Development

Reply to Comments
by
Department of Health, Education and Welfare

Letter dated March 17, 1977

1. Comment:

The description of the action contained in the summary does not state what the Federal Government is being asked to do. The impression given is that the Federal action is to provide additional electricity to the southern portion of the State of Arizona.

Response:

The summary sheet has been revised to more accurately reflect the role of the Federal Government in the Coronado Project. A more complete description of that role is contained in Section I.A. The role of the Federal Government in the Coronado Project is not to provide electricity to the southern portion of Arizona but rather to consider applications for right-of-way for transmission lines that service the Coronado Generating Station.

2. Comment:

The extensive Federal involvement, with respect to environmental review and consideration, from the inception of this project is not evident from the discussion contained in the section on Background and History (I.B.). The reader is left with a feeling that the Federal Government has been boxed into a situation whereby the only alternative is to grant the right-of-way easements for transmission lines and coal transportation or else the power plant will be totally useless.

Response:

The Federal Government has not been extensively involved in the Coronado Project from its inception. Section I.A. has been revised to clarify what the Federal Government's role has been. The Salt River Project asked the Departments of Interior and Agriculture to consider rights-of-way in November 1974 after it had already been through its siting process with the State of Arizona.

The federal study team has made it clear to the SRP from the beginning of work on this EIS that it does not feel obligated to provide rights-of-way for their facilities, particularly if, after an environmental review of the proposals it becomes evident that it is in the best interest of all parties involved or effected to do so.

A further clarification of the federal study teams role in the project is contained in a chronology of accounts shown in Chapter IV.

3. Comment:

While this may or may not be entirely so, more explanation needs to be provided to reflect exactly what has occurred during the planning, including changes or alterations of routes due to circumstances expanding or limiting alternatives.

Response:

Section I.A. of the final environmental statement has been revised to clarify the role the federal agencies have had in the development of plans for the Coronado Project.

4. Comment:

Finally, the decision of the "no action" alternative suffers from a lack of explanation as to why we have reached this point at the end of a one way street. Also, is there no conceivable way that the Coronado station could ever operate under this alternative, even if it were under somewhat more difficult circumstances?

Response:

HEW is correct in stating that there is no conceivable way that the Coronado Station could operate under the no action alternatives. This conclusion is so stated in the analysis of that alternate. However, this decision to begin construction of the powerplant was made by the Salt River Project knowing full well that there would be no guarantee of acquiring right-of-way over desired lands.

How we got to a given point on a seemingly one way street is directly related to who was driving the vehicle at any given time but this analogy of the federal government having no other choice but to grant right-of-way is inaccurate. The Salt River Project presented its proposals to the Departments of Interior and Agriculture in late 1974 and since that time the federal interagency study team has been working with SRP to see how, or if, their requests might be fulfilled. While this team did not have significant input into the siting of the generating station, it has played a significant role in the development of alternative routes for the transmission lines and railroad that cross federal lands that are still being actively considered.

5. Comment:

The DEIS identifies about 500 housing units that will be available for the projected population increase due to the project. The final EIS should discuss how the balance of housing will be provided. We are concerned that sufficient planning has been undertaken to insure that workers will have safe housing with adequate sanitary services.

Response:

Sections II.B-1.4.C and II.C.5.d have been expanded in the final environmental statement to discuss the housing situation in St. Johns and anticipated impacts for the Coronado Project.

6. Comment:

The increase in population in St. Johns will result in the addition of 470 students in the elementary and high schools. The elementary schools in particular have limited expansion capability available but not enough to handle the anticipated increase. The final EIS should discuss the measures that will be taken to deal with the anticipated problems at the elementary level. We feel that there should be greater discussion of the availability and plans to provide for educational staff and facilities.

Response:

Sections II.B-1.4.f and II.C.5.f have been expanded to discuss the education system in St. Johns and the anticipated effects on it by the Coronado Project.

7. Comment:

Additional information should be included in the final EIS with respect to medical assistance and health facilities for the population in St. Johns. The document states that the Salt River Project is negotiating for the provision of medical services at St. Johns; however, alternative plans for health care should be given in the final EIS in the event that SRP does not provide such services.

Response:

Sections II.B-1.4.e and II.C.5.e have been expanded to describe the existing health facilities in the St. Johns area and the effect of the Coronado Project on them.

8. Comment:

We feel there is inadequate exploration of the potential indirect effects on the community as related to such social parameters as economic impact on food availability for those on a fixed income.

Response:

The social studies performed for the St. Johns Region in response to the Coronado Project were detailed and comprehensive and approached all expected problems. They did not attempt to create or amplify problems that do not exist. This comment actually has no basis of fact when applied to the St. Johns situation.

9. Comment:

There is no doubt but that the Department of the Interior has designed the operations of the plant so as to utilize minimum quantities of water. However, the potential growth and urbanization of the surrounding areas as an indirect result of this power plant may, indeed, increase water demands beyond acceptable limits.

9. Response:

Salt River Project, and not the Department of the Interior, has designed the operations of the plant. As in all confined systems, there will be limits to urbanization and in the St. Johns area the availability of water will be one of the more important constraints. While the exact limits of the existing aquifers is not known, it is believed that there is enough water to satisfy the projected growth in the St. Johns area that is shown in this Environmental Statement.

10. Comment:

10. The final EIS should explore in more detail the potential contamination of aquifers by recharge using plant effluent.

Response:

The subject has been discussed to the extent that it is a viable consideration in this instance.

Replies to Comments contained in the attached letter, dated February 24, 1977, from the Assistant Secretary - Designate for Human Development

11. Comment:

11. While The Impact Statement indicates the Project will meet all applicable air pollution standards, no mention is made about what would be done if the Project fails to meet these standards. We think the safeguards and plans for this possibility should be presented.

Response:

Enforcement of the air quality standards adopted for the Coronado Generating Station is the responsibility of the State of Arizona. None of the agencies represented on the federal study teams have statutory responsibilities in this area. Ultimately the State has the authority to shut down the Coronado Generating Station if standards are not met; however, there are several options available to the State. It would be inappropriate for this EIS to commit the State of Arizona to a course of action.

12. Comment:

12. As the Impact Statement reviews the adverse impacts on the socio-economic environment, they describe both the present relative poverty and depravation of this county as second worst in the State of Arizona, and also the permanent employment which will result because of the project. With such a high rate of present unemployment in the area, we think the Project should be required to describe and implement a plan which will address these various socio-economic environmental influences, including a plan to reduce the unemployment prior to moving large numbers of people into the area for the purpose of employment.

12. Response:

It is true that there is a high rate of unemployment in Apache County per se. but that is not the case for the St. Johns area. It must be kept in mind that Apache County is a very large county. It should also be kept in mind that the large numbers of people moving to the St. Johns area possess a workmans' skill that is needed for construction of the generating station which is not available from the local work force.

13. Comment:

In addition, since the project is located in the midst of a large Indian population, including other minorities, we think an affirmative action plan should be included.

Response:

Salt River Project has prepared an affirmative action program in accordance with Title VII of the Civil Rights Act of 1964, as amended in 1972. In addition, Salt River Project's sub-contractors are required by their contracts with Salt River Project to have an affirmative action program.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
3008 Federal Building, Phoenix, Arizona 85025

March 18, 1977

Mr. Manuel Lopez, Jr.
Regional Director
Lower Colorado Region
Bureau of Reclamation
P. O. Box 427
Boulder City, Nevada 89005

Dear Mr. Lopez:

The Soil Conservation Service in Arizona has reviewed the Coronado Project draft environmental impact statement. Following are our comments:

1. General Comments

   a. A good job was done in analyzing the sediment problem created. Not much discussion on what can be done to help the situation such as seeding, establishment of vegetation, constructing sediment traps, etc. The Soil Conservation Service has the expertise to assist in solving these problems. We would be happy to help if asked.

   b. Concentration of water flows and possibilities of increased downstream flooding have not been addressed.

   c. There is no discussion on the amount of prime or unique farmland impacted.

   d. There was no apparent consideration given to conserving and reusing topsoil.

2. Soils Comments

   a. Pg. II-19, III-13: The soil *Moenkopie* is spelled with a final e to distinguish it from the geological formation called *Moenkopi*.

   b. Pg. II-40: Are 3,000 acres of native grass really under irrigation? It might be more accurate to just say grass.

   c. Pg. II-63A: *Permian* not *Pernian*

d. Pg. III-14: Navajo soils have a high shrink-swell potential.

e. Pg. III-15: Contine soils have a high shrink-swell potential.

f. Soils maps - figures II-10 (again spell *Moenkopie*) and II-28 are not comparable at the plant site because on II-28 soils lines are superimposed on a different base.

3. Other Comments

a. Pg. II-80 next to last line. Believe *southeasterly* should be *southwesterly*.

b. Pg. II-24, paragraph 3: Should say "range sites" and not "range types."

We appreciate being given the opportunity to review this draft statement.

Sincerely,

For:

Thomas G. Rockenbaugh
State Conservationist

cc:
Council on Environmental Quality (5 copies)
722 Jackson Place, N.W.
Washington, D.C.

Director, Environmental Services Division (1 copy)
Soil Conservation Service
Washington, D.C.

Reply to Comments
by

U. S. Department of Agriculture
Soil Conservation Service

Letter dated March 18, 1977

1. Comment:

A good job was done in analyzing the sediment problem created. Not much discussion on what can be done to help the situation such as seeding, establishment of vegetation, constructing sediment traps, etc. The Soil Conservation Service has the expertise to assist in solving these problems. We would be happy to help if asked.

Response:

The design of the project and the construction methods described will minimize the sediment problem. However, on private lands there are no specific plans to prevent the expected impacts.

2. Comment:

Concentration of water flows and possibilities of increased downstream flooding have not been addressed.

Response:

Section II.C.3.g.(1).(a) on page II-128 of the draft statement addresses this question (which is primarily associated with the railroad spur). This section states that:

> "Impacts on hydraulics will manifest themselves in the study area as disturbances in stream flow. The impacts will consist of changes in direction, turbulence, elevation, gradient or rates of flow. Such disturbances could result in flooding, ponding or secondary impacts such as erosion and sedimentation. The greatest potential for impact probably lies in the several headwater areas that will be crossed by the alignment. Here gradients and numbers of small washes are greater than those in the nearly-level areas that lie along much of the route. Because of the adequate number and favorable design characteristics of culverts and bridges and, to a lesser extent, the generally low volumes and rates of runoff that are likely to occur in most channnels, the potential hydraulic impact on stream flow by the proposed alignment will be insignificant."

3. Comment:

There is no discussion on the amount of prime or unique farmland impacted.

Response:

A brief discussion of prime farm land follows: prime farm land is land best suited for producing food, meat, forage, fiber and oil seed crops and also available for these uses (the land can be crop land, pasture land, range land, forest land or other land but not urban built-up land or water). It has the soil quality, growing season, and moisture supply to produce sustained high yield of crops economically when treated and managed, including water management, according to modern farming methods. Unique farm land is land other than prime farm land that is used for production of specific high yield food and fiber crops. It has a special combination of soil quality, location, growing season and moisture supply needed to produce sustained high quality and/or high yield of a specific crop when treated and managed according to modern farming methods. Examples of such crops are: citrus, olive, cranberry, fruit and vegetable.

An estimated 4,173 square feet (0.096 acres) of prime and/or unique farm lands will be removed from production along the 500 kV links 34 and 35.

4. Comment:

There was no apparent consideration given to conserving and reusing topsoil.

Response:

Salt River Project has no specific plans to conserve and reuse topsoil.

5. Comment:

Pg. II-19, III-13: The soil Moenkopie is spelled with a final e to distinguish it from the geological formation called Moenkopi.

Response:

The corrections have been made.

6. Comment:

Pg. II-40: Are 3,000 acres of native grass really under irrigation? It might be more accurate to just say grass.

Response:

The St. Johns Irrigation Project has approximately 2400 acres of unseeded native grass under irrigation. These grasses include Sacaton grass and Salt grass. The 300 acres in pasture include such seeded grasses as Tall Fescue.

7. Comment:

Pg. II-63A: Permian not Pernian.

Response:

The correction has been made.

8. Comment:

Pg. III-14: Navajo soils have a high shrink-swell potential.

Response:

Both the Navajo and Contine soils have mixed mineralogy but are high in clay factions. Therefore, since they are not montmorillonitic in mineralogy, we consider them to best be represented by a moderate shrink-swell potential as noted on pages III-14 and 15 of the statement.

9. Comment:

Pg. III-15: Contine soils have a high shrink-swell potential.

Response:

Both the Navajo and Contine soils have mixed mineralogy but are high in clay factions. Therefore, since they are not montmorillonitic in mineralogy, we consider them to best be represented by a moderate shrink-swell potential as noted on pages III-14 and 15 of the statement.

10. Comment:

Soils maps - figures II-10 (again spell Moenkopie) and II-28 are not comparable at the plant site because on II-28 soils lines are superimposed on a different base.

Response:

Figure II-10 is a map of the plant site area and Figure II-28 is a map of the railroad spur study area. Both figures are marked with township and Range grid lines. Figure II-28 also has Section lines marked on the map. While the scales of the two maps are different, the Township and Range grid should be sufficient base for comparison of the two maps.

11. Comment:

Pg. II-80 next to last line. Believe southeasterly should be southwesterly.

Response:

The correction has been made.

12. Comment:

Pg. II-24, paragraph 3: Should say "range sites" and not "range types."

Response:

The paragraph is correct as is. It is referring to two types of rangeland over a broad area.

Interstate Commerce Commission
Washington, D.C. 20423

OFFICE OF PROCEEDINGS

March 24, 1977

Mr. Manuel Lopez, Jr.
Regional Director
Bureau of Reclamation
P.O. Box 427
Boulder City, Nevada 89005

Dear Mr. Lopez:

The draft environmental impact statement for The Coronado Project (INT DES 77-2) has been reviewed by the Commission's Section of Energy and Environment. Our comments are limited to the discussion of the 42.5 mile railroad spur from Navajo to the generating plant at St. Johns.

Common Carrier Status

The proposed rail line will be a spur track located wholly within the State of Arizona. Prior authorization pursuant to Section 1a(18) of the Interstate Commerce Act will not be required. As a private line, the railroad will not be available to provide local rail service to present a prospective shippers in the St. John area. Common carrier status, on the other hand, would make said service available upon reasonable request. With this in mind, the following specific comments are offered:

- Page I-58 indicates no present intent to provide common carrier service. Yet page II-191 states that the line will probably be left in place for local service when the power plant is decommissioned. This inconsistency should be clarified.

- The benefits of local rail service should be addressed. In particular, a number of studies note a positive relation between the existence of such service and the ability of communities to attract and retain new industries. Railroads also offer significant environmental advantages over truck transport, especially in the areas of fuel consumption, emissions, and highway maintenance needs.

- The feasibility of extending the spur line directly to the St. John's business and/or the designated limestone areas should be explored. At a minimum, this would enable rail transport of an estimated 96,000 tons of limestone a year with a concomitant environmental savings.

- The EIS should indicate what factors would precipitate consideration of common carrier status, such as potential non-coal traffic, future line ownership, interference with unit train operations, etc.

Operational Impacts

The EIS does not state with specificity what private or public roads will be transected by the rail spur. Provisions for suitable ingress and egress for local users (such as separated grade crossings) are similarly omitted.

There are also a number of off-line impacts associated with spur construction. Accumulation of coal traffic on main lines may present physical barriers to bisected communities and pose safety hazards at grade crossings.

Mitigating Measures

It is not clear in the statement which mitigating measures will be required by regulation or are merely incidents of State of the arts construction techniques. For example, right-of-way permits may require animal crossings for Federal land. Will there be similar provisions for private lands?

The Commission in a recent construction proposal (Finance Docket No. 27579) imposed a number of mandatory conditions in its certificate of public convenience and necessity (see attached appendix A). Discussion of the desirability of similar conditions should be explored in the impact statement.

Of particular note are the conditions aimed at mimimizing topographical impacts. Maximum slopes of 3:1 for cuts under 40 feet and 2:1 for cuts greater than 40 feet are required. The EIS, on the other hand, indicates slopes of 1.5:1 and 1:1 (see page I-55). It is felt that the slope restrictions would mitigate erosion (estimated at 28,000 tons a year) and at the same time help maintain the integrity of the rail right-of-way.

Thank you for the opportunity to review this document.

Sincerely yours,

Richard I. Chais

Richard I. Chais
Chief, Section of Energy
and Environment

Encl. (1)

APPENDIX A

Mitigating actions suggested in the EIS

Air quality—Compliance with all applicable Federal and State air quality laws, regulations, and standards.

Topography—a. Operations shall be conducted so as not to change the character of or cause pollution of streams, ponds, seeps, and marches. Alterations which may induce soil movements, water pollution, or objectionable landforms shall not be constructed.

b. The utilization of wheeled or tracked equipment to minimize surface damage, and to effect a minimum of topographic alterations by avoiding drainage bottoms and high erosion areas for use as borrow areas, waste disposal areas or material excavation sites.

c. The avoidance of construction activities outside the right-of-way boundaries during muddy or wet ground conditions.

d. The use of existing roads and trails for access to construction and other sites, avoiding the construction of steep hillside roads, and providing for suitable crossings.

e. The installation of drainage crossings, culverts, or bridges so as not to cause blockage, siltation, accumulation of debris, or altering drainage courses.

f. The construction and maintenance of permanent service roads, borrow pits and railroad embankments, providing adequate water drainage to minimize erosion by the diversion of water with culverts or cutouts.

g. The rehabilitation of abandoned temporary access roads by reducing waterbarring and revegetating slopes to gentle grades consistent with adjacent topography.

h. Construction of access needs in order to prevent the creation of short-cut trails and roads.

i. The avoidance of deep vertical cuts with slopes on cuts of 40 feet or less not exceeding 3:1 slope and on cuts greater than 40 feet not exceeding a 2:1 slope, and with construction areas graded to conform to the adjacent terrain.

j. The filling and grading of excavation sites to be compatible with the adjacent terrain and susceptible to revegetation.

k. The use of rip-rap to prevent bank sloughing, cutting, or head cutting where water courses are altered.

Soils—The stockpiling of topsoil for later replacement on disturbed areas, cuts and fills using mechanized equipment to minimize soil mixing. The ripping and tilling of the soild surface to minimize soil compaction; restriction of unnecessary off-road vehicle use; mulching, revegetation, and development of erosion structures including waterbars, terraces, contour furrows, grassed waterways, and interceptor ditches; disking or harrowing of smooth, exposed soil areas; and the collection of soil samples for chemical and physical analysis. The use of mechanical treatment practices such as contour furrows, terraces, and mulches to retain moisture and reduce soil loss, and the

use of diversion ditches, waterways, and water spreaders to reduce sediment yield and runoff. The selection and use of disposal areas so as not to have a detrimental effect upon the environment; the cleaning up, scarifing, rehabilitating, and revegetating of service haul roads, material sites, campsites, and equipment storage areas including contingency plans to clean up accidental spillage of detrimental or toxic materials and to restore damaged soil to a near natural condition. The treatment of service roads with a binder of water or chemical meeting State and Federal standards. The sloping of the edges or sides of all excavated material sites to a minimum of 3:1 slope.

Water resources—The handling, storage, and disposal of all wastes and the application of herbicides in a manner to keep them out of all water; the revegetation of all disturbed areas, rip-rapping around bridge abuttments; and the restriction of equipment operations in stream bottoms and in and around open water.

Vegetation—The control of off-road vehicles and other equipment during railroad construction and the development and operation of a fire protection and fire rehabilitation program by the railroad companies to lower the incidence of vegetation damage from range fires by use of spark arrestors on all appropriate equipment operated on and adjacent to the right-of-way.

Archeological preservation—The sharing by the railroad companies in the cost of establishing a full-time resident basin paleoarcheologist under the supervision of the State Historic Preservation Officer to aid in the reduction of lead time and development delays by performing advance surveys for support facilities, educating construction employees, sampling soils, responding to company discoveries, and conducting salvage work.

Aesthetics—The seeding of native grasses and shrubs to hasten the return to natural unbroken patterns in the vegetation with tilling and planting irregularly into the adjoining vegetation to break unnatural lines. The use of nonrelfective materials on transmission lines, towers, and buildings located on Federal lands and the right-of-way with minimum soil disturbance and the rounding of the tops of cut slopes and bottoms of fill slopes to blend with adjoining natural slopes.

Wildlife and fish—The reestablishment of perennial grassland vegetative cover on disturbed areas, and the minimization of right-of-way barriers (fences) to wildlife movement through the construction of crossings or other structures and proper control and disposal of wastes and the protection of riparian vegetation and surface water from herbicides to minimize surface water quality changes.

Recreation—The provision of crossings for existing truck trails with legal access in areas of the National Grasslands.

Agriculture—The erection of temporary fencing in existing pasture areas, the bridging or culverting of ditching and canals, culverting of ephemeral and intermittent streams to all our normal stream flows, installation of drop structures or diverted drainages, the disposition of vegetative material and litter in compliance with EPA regulations, the disposition of waste materials to prevent spillage and at an approved site with approved methods, use of water in conformance with State water laws, replacement or reimbursement to landowner of attendant facilities, fencing of right-of-way, the revegetation of areas denuded by construction, the watering and disking of denuded area to mitigate the effect of blowing rail, compliance with EPA herbicide usage rates to control noxious weeds, and to maintain fences on right-of-way to prevent livestock mortality.

Transportation networks—The avoidance of the location of road crossings with poor visibility, the provision of adequate stopping distances, avoidance of road depression at grade crossings to prevent snow build-up to limit train accident probability.

Reply to Comments by
Interstate Commerce Commission

Letter dated March 24, 1977

1. Comment:

Page I-58 indicates no present intent to provide common carrier service. Yet page II-191 states that the line will probably be left in place for local service when the power plant is decommissioned. This inconsistency should be clarified.

Response:

The Salt River Project's position is that the line will be a single purpose private line to service the Coronado Generating Station. Section II-F (formally page II-191 of the draft statement) has been expanded to clarify the fact that if the line is used by the City of St. Johns it will first have to achieve common carrier status.

2. Comment:

The benefits of local rail service should be addressed. In particular, a number of studies note a positive relation between the existence of such service and the ability of communities to attract and retain new industries. Railroads also offer significant environmental advantages over truck transport, especially in the areas of fuel consumption, emissions, and highway maintenance needs.

Response:

The only benefit of this railroad has been addressed, that of providing coal to the Coronado Generating Station. The points that ICC makes about the benefits of local rail service would apply to a line with common carrier status but not to this facility. There are any number of secnarios that could be developed for such a proposal but they would not be applicable to this project.

3. Comment:

The feasibility of extending the spur line directly to the St. John's business and/or the designated limestone areas should be explored. At a minimum, this would enable rail transport of an estimated 96,000 tons of limestone a year with a concomitant environmental savings.

Response:

The feasibility of extending the spur line to the limestone source was explored by Salt River Project. The cost of constructing the railroad would result in a delivery cost of $38.00 per ton of limestone. Delivering the limestone by truck will cost approximately $1.00 per ton. Therefore, the economic advantages of truck delivery versus railroad construction and delivery make the railroad extension unfeasible.

4. Comment:

The EIS should indicate what factors would precipitate consideration of common carrier status, such as potential non-coal traffic, future line ownership, interference with unit train operations, etc.

Response:

Since the line is being constructed and wholly financed by the SRP, none of the considerations that would precipitate common carrier status are anticipated at this time.

5. Comment:

The EIS does not state with specificity what private or public roads will be transected by the rail spur. Provisions for suitable ingress and egress for local users (such as separated grade crossings) are similarly omitted.

Response:

Figures I-15 and II-53 of the draft statement showed the alignments studied for the railroad spur on county highway maps. These maps show all public and private roads, including those that would be transected by each of the alignments. Provisions for suitable ingress and egress will be subject to the requirements of the landowner from whom the right-of-way is acquired. (See comment No. 6 for a discussion of grade crossing).

6. Comment:

There are also a number of off-line impacts associated with spur construction. Accumulation of coal traffic on main lines may present physical barriers to bisected communities and pose safety hazards at grade crossings.

Response:

As shown on Figures I-15 and II-53 of the draft statement, there are no major communities bisected by any of the railroad spur alignments. Therefore, the safety hazards are expected to be minimal. The Salt River Project must obtain an encroachment permit from the Arizona Department of Transportation for the railroad spur crossing of U. S. Highway 666. The permit will be subject to the safety requirements established by the Department of Transportation.

7. Comment:

It is not clear in the statement which mitigating measures will be required by regulation or are merely incidents of State of the arts construction techniques. For example, right-of-way permits may require animal crossings for Federal land. Will there be similar provisions for private lands?

Response:

Mitigating measures on Federal land will be subject to the requirements of the Federal agency having jurisdiction over the land. On private lands, the landowner must approve or consent to any mitigating measures affecting the landowner's property.

8. Comment:

The Commission in a recent construction proposal (Finance Docket No. 27579) imposed a number of mandatory conditions in its certificate of public convenience and necessity (see attached appendix A). Discussion of the desirability of similar conditions should be explored in the impact statement.

Of particular note are the conditions aimed at minimizing topographical impacts. Maximum slopes of 3:1 for cuts under 40 feet and 2:1 for cuts greater than 40 feet are required. The EIS, on the other hand, indicates slopes of 1.5:1 and 1:1 (see page I-55). It is felt that the slope restructions would mitigate erosion (estimated at 28,000 tons a year) and at the same time help maintain the integrity of the rail right-of-way.

Response:

The draft statement covers most of the measures suggested by the Commission in some detail. Salt River Project's design consultant, Bechtel Corporation, feels that the slopes proposed for cuts and fills are suitable for the geology and climate of the St. Johns, Colorado Plateau region. These designs appear adequate.

FEDERAL POWER COMMISSION
WASHINGTON, D.C. 20426

IN REPLY REFER TO:

MAR 25 1977

Mr. Clifford I. Barrett
Acting Commissioner
U. S. Department of the Interior
Bureau of Reclamation
Washington, D. C. 20240

Dear Mr. Barrett:

This is in response to your letter dated January 14, 1977, requesting comments on the Department of the Interior's Draft Environmental Statement (DES 77-2) related to the construction of the Coronado Project by Salt River Agricultural Improvement and Power District (SRP). The Coronado Project consists of three generating units of 350 MW each and an associated 500 kV transmission system. The generating station is to be located near St. Johns, Arizona. Coronado units 1, 2, and 3 (owned and operated entirely by SRP) are scheduled for commercial operation in April 1979, April 1980, and April 1987, respectively. The two 500 kV transmission lines from Coronado to Cholla and Silver King Substations are scheduled for April 1978 and January 1979, respectively.

These comments by the Federal Power Commission's Bureau of Power staff are made in compliance with the National Environmental Policy Act of 1969 and are directed to the need for the capacity represented by Coronado Units 1, 2, and 3, and to related bulk electric power supply matters.

In preparing these comments, the Bureau of Power staff has considered the Department of the Interior's Draft Environmental Statement, the Western Systems Coordinating Council's (WSCC) April 1, 1976, "Report on Reliability and Adequacy of Electric Power" (submitted pursuant to FPC Order 383-3, Docket R-362), and the September 1976 "Supplemental Power Statement" (FPC Form 12E-2) submitted by SRP, Arizona Public Service Company, and Colorado-Ute Electric Association, Inc. The latter two utilities are interconnected with SRP and must be considered in a study involving SRP load and capacity.

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

The Federal Power Commission has found that industry practice, for predominantly thermal generating systems, is to provide for projected reserve margins in the range of 15 to 25 percent of peak load. In addition, an increasing number of systems are using a loss of load probability (LOLP) criterion in determining reserve margins. The LOLP criterion used by several systems in the WSCC and by many of the utilities in the United States is one day in ten years. SRP, however, subscribes to a planning criterion which is to maintain a reserve margin equal to at least 15 percent of the estimated peak demand.

The attached table shows SRP's projected generating capabilities, peak loads and reserve margins for the 1979 through 1987 summer peak periods, and the effect of the capacity of Coronado Units 1, 2, and 3 on the reserve margins. SRP should have adequate capacity reserves for its own internal demand from 1979 through 1987 even if each unit is delayed one year. However any delay in completing Coronado Unit No. 1 beyond one year would result in a projected reserve deficiency of 6.6 percent in 1980. Without the entire Coronado Project the reserve deficiency would range from 5.4 percent to 14.2 percent between 1980 and 1987.

The Bureau of Power staff has made an LOLP probability study of SRP's system for the peak week of each year and found that the LOLP increases from .08 hours per week in 1976 to .18 hours per week in 1979, .10 hours per week in 1980 and .23 hours per week in 1987 with a high of 1.35 hours per week in 1985. These figures do not reflect purchased power and assume all three Coronado Units come into operation as scheduled. Staff does not believe that purchased power will be available in any significant amount.

In order to maintain the generating capacity margins given, SRP has scheduled other generating units in addition to Coronado Units 1, 2, and 3 during the 1979-1987 period. SRP has scheduled the following capacity, which is SRP's participation in units constructed by other systems. These units are Craig 2 (29.0 percent participation for 110 MW) owned by Colorado-Ute Electric Association and Palo Verde 1, 2, and 3 (29.1 percent participation for 357 MW each) owned by Arizona Public Service Company.

The Bureau of Power staff concludes that capacity equivalent to that represented by Coronado Units 1, 2, and 3 is needed beginning prior to the 1980 summer peak in order to assure the adequacy and reliability of the affected bulk power systems.

It is also concluded that the transmission facilities associated with Coronado Units 1, 2, and 3 are required to transport the output of the Coronado Units into the SRP transmission system.

Very truly yours,

Jack L. Weiss

Jack L. Weiss
Acting Chief, Bureau of Power

Attachment: Table

SALT RIVER PROJECT
Summer Peak Load - Supply Situation 1/

With Coronado Units 1, 2, 3 (1,050 Megawatts)	1979	1980	1981	1982	1983	1984	1985	1986	1987
Total Peak Capability - Megawatts	3,069	3,419	3,419	3,712	3,712	4,080	4,080	4,448	4,798
Peak Load - Megawatts 2/	2,298	2,509	2,674	2,845	2,989	3,142	3,273	3,420	3,578
Reserve Margin - Megawatts	771	910	745	867	723	938	807	1,028	1,220
Reserve Margin - Percent of Peak Load	33.6	36.3	27.9	30.5	24.2	29.9	24.7	30.1	34.1
Desired Reserve Margin (Based on 15 percent of Peak Load) - Megawatts	345	376	401	427	448	471	491	513	537
Reserve Deficiency - Megawatts	None	None	None	None	None	None	None	None	None
Without Coronado Units 1, 2, 3 (1,050 Megawatts)									
Reserve Margin - Megawatts	421	210	45	167	23	238	107	328	170
Reserve Margin - Percent of Peak Load	18.3	8.4	1.7	5.9	.8	7.6	3.3	9.6	4.8
Reserve Deficiency - Megawatts	None	166	356	260	425	233	384	185	367
With Coronado Units 1, 2, 3 Delayed One Year									
Reserve Margin - Megawatts	421	560	745	867	723	938	807	1,028	870
Reserve Margin - Percent of Peak Load	18.3	22.3	27.9	30.5	24.2	29.9	24.7	30.1	24.3
Reserve Deficiency - Megawatts	None	None	None	None	None	None	None	None	None

1/ Data Source: SRP's Response for September 1976 to FPC Form 12E-2.

2/ 1986 and 1987 Peak Load Projections Estimated by FPC Staff.

Reply to Comments by
Federal Power Commission

Letter dated March 25, 1977

No replies are needed to this letter.

United States Department of the Interior

NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

IN REPLY REFER TO:
L7619
(WR)REQ

MAR 31 1977

Memorandum

To: Commissioner, Bureau of Reclamation

Through: Assistant Secretary for Fish and Wildlife and Parks

From: Director

Subject: Draft Environmental Statement - Coronado Project (DES 77-2)

We have reviewed the draft environmental statement and offer the following comments for your consideration.

COMMENTS ON THE ENVIRONMENTAL STATEMENT

General Comments:

Since the Coronado Generating Station plant site and its associated support facilities (access, roads, wellfields, ash disposal site, evaporation pond, etc.) are located on private lands and not subject to Federal action, as discussed on page I-8, we are pleased with the attention afforded the cultural resources located within the plant site project area. The large number of resources already identified (130 sites that will be directly or indirectly affected by the proposed action) indicate the area is potentially significant in the elucidation of history and prehistory.

Because cultural remains are finite in number and nonrenewable, concentrated efforts should be made to protect the scientific and interpretive information contained in the resources located within the project area.

Specific Comments:

The Barth Hotel is discussed on page II-52 as being within the study area. In addition to being included on the State Historic Sites Inventory, it was also added to the National Register of Historic Places on September 5, 1975. The final statement should include this information.

In sections entitled "Historical and Archeological Resources" (pages II-50, II93, and II-163), cultural resources are discussed under separate headings of "Historic" and "Archeological." However, sites of historic affiliation located during field studies are discussed under the heading of "Archeological Resources." This distinction becomes confusing when discussing impacts resulting from construction of the proposed project. For example, in reference to the plant site, page II-163 states "no direct impacts on historic resources would be associated with these features." However, pages II-54 - II-59 discuss at least eight historic sites identified by the Museum of Northern Arizona that would be directly affected by construction of the plant. This confusion can be avoided in the final statement by including historic resources located during ground surveys in the discussion under the heading of Historical Resources.

Although the Museum of Northern Arizona holds the view that none of the reported sites within the plant site project area are eligible for inclusion in the National Register of Historic Places (page II-59), it appears, from the descriptions of these sites on the preceding pages, the resources may be likely to yield significant information. The Bureau of Reclamation should, through consultation with the State Historic Preservation Officer, apply the criteria of eligibility to the National Register (ref. 36 CFR 300.10) to these reported sites. For those properties found to be potentially eligible and for those whose potential eligibility is questionable, a determination of eligibility should be sought from the Secretary of the Interior. Adequate documentation about the properties' significance should be sent to the Director, Office of Archeology and Historic Preservation, NPS, Department of the Interior, 18th and C Streets, N.W., Washington, D.C. 20240 for a formal determination of eligibility. Without a proper determination of eligibility statements such as those contained on pages II-163 and II-172, concerning effects of the proposed project, are considered premature.

Page II-94 states that selected portions of the railroad alignment were investigated and "over a total of 13.5 miles of the proposed centerline" was surveyed. It is not indicated exactly what portions of the 43.5 mile route was investigated. The archeological survey report (Appendix F) indicates, in the opinion of the archeologists, the 10 sites located during the survey are considered to be potentially eligible for the National Register of Historic Places. However, there is no discussion of this in the statement. The final statement should address this issue.

In addition, page II-96 states that "a (historic) site reconnaissance was conducted within the (railroad) corridor, and examinations of the most promising sites were made." The criteria used in establishing what would constitute a promising site is not discussed. Cultural resources are

often inconspicuous and their locations are frequently difficult to predict; therefore, all areas that may be subject to impact should be surveyed in order to locate all cultural resources that may be affected by the proposed railroad. This is especially important in view of the statement on page II-108 "the area most prone to...damage is the railroad line right-of-way in the vicinity of the major drainages."

We concur with the commitment made on page II-180 to minimize loss of or damage to archeological sites. Therefore, once the intensive survey "aimed at locating all sites within the project area" (page II-165) is completed, the resources found eligible for inclusion in the National Register of Historic Places should be discussed with the State Historic Preservation Officer, and a determination made as to the effect of the proposed project upon these sites. If it is determined the effect will be adverse, a mitigation program designed to effectively alleviate these impacts should be developed in consultation with the State Historic Preservation Officer and the Advisory Council on Historic Places. Compliance with these procedures should be adequately documented in the final environmental statement.

In addition, copies of any archeological reports should be made available to the Western Archeological Center, National Park Service, P.O. Box 49008, Tucson, Arizona 85717, so an informed evaluation of the proposed project will be possible.

On page I-24 the statement shows initially 20,000 tons of crushed coal will be delivered daily from McKinley Mine to Navajo to the generating station. There is considerable discussion of the dust suppression techniques for handling coal at the site, but no mention of suppression on the cars used to transport the coal. The statement should indicate the dust suppression methods that will be used for railroad cars.

On page II-127 the report states that the site will be 800 acres, that it will be diked, and that the ash will be spread over the area and compacted. The statement should indicate what further treatment of the ash will take place once it has been compacted on the site.

The proposed diking and compacting measures for deposited ash do not appear adequate when considering the heavy winds that are common to this area. The statement should further evaluate the adequacy of these proposed methods.

William J. Bingle

Reply to Comments
by
National Park Service

Letter dated March 31, 1977

1. Comment:

Since the Coronado Generating Station plant site and its associated support facilities (access, roads, wellfields, ash disposal site, evaporation pond, etc.) are located on private lands and not subject to Federal action, as discussed on page I-8, we are pleased with the attention afforded the cultural resources located within the plant site project area. The large number of resources already identified (130 sites that will be directly or indirectly affected by the proposed action) indicate the area is potentially significant in the elucidation of history and prehistory.

Because cultural remains are finite in number and nonrenewable, concentrated efforts should be made to protect the scientific and interpretive information contained in the resources located with the project area.

Response:

Efforts have been made to protect and preserve cultural resources in the project area. Avoidance has been encouraged where possible at all locations, especially at the wellfields. Thorough excavation studies were undertaken at the plant site and evaporation pond/ash disposal areas by the Museum of Northern Arizona, which is also acting as the curator for the materials recovered.

2. Comment:

The Barth Hotel is discussed on page II-52 as being within the study area. In addition to being included on the State Historic Sites Inventory, it was also added to the National Register of Historic Places on September 5, 1975. The final statement should include this information.

Response:

The final environmental statement has been revised to show the Barth Hotel as being on the National Register of Historic Places.

3. Comment:

In sections entitled "Historical and Archeological Resources" (pages II-50, II-93, and II-163), cultural resources are discussed under separate headings of "Historic" and "archeological." However, sites of historic affiliation located during field studies are discussed under the heading of "Archeological Resources." This distinction becomes confusing when discussing impacts resulting from construction of the proposed project. For example, in reference to the plant site,

3. Comment - continued....

page II-163 states "no direct impacts on historic resources would be associated with these features." However, pages II-54 - II-59 discuss at least eight historic sites identified by the Museum of Northern Arizona that would be directly affected by construction of the plant. This confusion can be avoided in the final statement by including historic resources located during ground surveys in the discussion under the heading of Historical Resources.

Response:

The final environmental statement has been revised to show discussion of historical resources under one heading.

4. Comment:

Although the Museum of Northern Arizona holds the view that none of the reported sites within the plant site project area are eligible for inclusion in the National Register of Historic Places (page II-59), it appears, from the descriptions of these sites on the preceding pages, the resources may be likely to yield significant information. The Bureau of Reclamation should, through consultation with the State Historic Preservation Officer, apply the criteria of eligibility to the National Register (ref. 36 CFR 300.10) to these reported sites. For those properties found to be potentially eligible and for those whose potential eligibility is questionable, a determination of eligibility should be sought from the Secretary of the Interior. Adequate documentation about the properties' significance should be sent to the Director, Office of Archeology and Historic Preservation, NPS, Department of the Interior, 18th and C Streets, N.W., Washington, D.C. 20240 for a formal determination of eligibility. Without a proper determination of eligibility statements such as those contained in page II-163 and II-172, concerning effects of the proposed project, are considered premature.

Response:

The text has been modified in Section II.B-1.4.f. to reflect the fact that the appropriate Federal agency will evaluate eligibility for the National Register of Historic Places.

5. Comment:

Page II-94 states that selected portions of the railroad alignment were investigated and "over a total of 13.5 miles of proposed centerline" was surveyed. It is not indicated exactly what portions of the 43.5 mile route was investigated. The archeological survey report (Appendix F) indicates, in the opinion of the archeologists, the 10 sites located during the survey are considered to be potentially eligible for the National Register of Historic Places. However, there is no discussion of this in the statement. The final statement should address this issue.

5. Response

The approximately 13.5 miles of the proposed centerline which was surveyed was composed of 13 segments, 0.5 or 1.5 miles in length which were located along the entire alternate railroad route. These segments were randomly spaced at intervals of varying lengths. These segments were selected on the basis of ease of access (existing roads) and permission from private landowners. No decision was made about areas to be investigated prior to entering the field. The final environmental statement has been revised to reflect the opinion of those archeologists performing the study.

6. Comment:

6. In addition, page II-96 states that "a (historic) site reconnaissance was conducted within the (railroad) corridor, and examinations of the most promising sites were made." The criteria used in establishing what would constitute a promising site is not discussed. Cultural resources are often inconspicuous and their locations are frequently difficult to predict; therefore, all areas that may be subject to impact should be surveyed in order to locate all cultural resources that may be affected by the proposed railroad. This is especially important in view of the statement on page II-108 "the area most prone to....damage is the railroad line right-of-way in the vicinity of the major drainages."

Response:

A reconnaissance survey was done of selected portions of the alternate railroad route. Of the entire route (alternate) 13.5 miles were intensively surveyed, while the remainder was inspected during an aereal reconnaissance and investigated as a result of archival research.

The 13.5 miles which were surveyed was composed of thirteen 0.5 mile or 1.5 mile segments which were located along the entire alternate railroad route. These segments were randomly spaced at intervals of varying length. These segments were selected on the basis of ease of access (existing roads) and permission from private landowners. No decision was made about areas to be investigated prior to entering the field. In addition, bore hole and test pit locations were inspected prior to soil evaluation, and at that time archeological sites which were encountered were recorded. Promising locations, (see change in terminology Section II.B.2.3.c) those areas associated with distinct topographic, vegetation or geologic features which may be associated with distinct cultural data, were investigated in the field.

A detailed intensive survey will be done of the entire selected railroad route.

7. Comment:

We concur with the commitment made on page II-180 to minimize loss of or damage to archeological sites. Therefore, once the intensive survey "aimed at locating all sites within the project area" (page II-165) is completed, the resources found eligible for inclusion in the National Register of Historic Places should be discussed with the State Historic Preservation Officer, and a determination made as to the effect of the proposed project upon these sites. If it is determined the effect will be adverse, a mitigation program designed to effectively alleviate these impacts should be developed in consultation with the State Historic Preservation Officer and the Advisory Council on Historic Places. Compliance with these procedures should be adequately documented in the final environmental statement.

Response:

The State Historic Preservation Officer (SHPO) has been kept informed and has received copies of all reports prepared on archeological work on the project. A mitigation program will be completed prior to construction at each construction site. The SHPO will be advised of the ongoing work and provided an opportunity for input to mitigation plans.

8. Comment:

In addition, copies of an archeological reports should be made available to the Western Archeological Center, National Park Service, P.O. Box 49008, Tucson, Arizona 85717, so an informed evaluation of the proposed project will be possible.

Response:

All reports have been sent to Mr. Rex Wilson, Federal Antiquities Permit, Chief of Interagency Archeological Services, National Park Service, Washington, D.C., in accordance with the requirements of Federal Antiquities permits. Copies of all final reports have also been sent to National Park Service, Western Region, San Francisco. Additional copies could be made available for Western Archeological Center, NPS, Tucson, if it is required.

9. Comment:

On page I-24 the statement shows initially 20,000 tons of crushed coal will be delivered daily from McKinley Mine to Navajo to the generating station. There is considerable discussion of the dust suppression techniques for handling coal at the site, but no mention of suppression on the cars used to transport the coal. The statement should indicate the dust suppression methods that will be used for railroad cars.

Response:

There are no dust suppression methods planned for the railroad cars in transit. Dust fallout from railroad cars is not expected to be a significant problem.

10. Comment:

On page II-127 the report states that the site will be 800 acres, that it will be diked, and that the ash will be spread over the area and compacted. The statement should indicate what further treatment of the ash will take place once it has been compacted on the site.

Response:

The statement has been revised to indicate what further treatment of the ash will take place once it has been compacted on the site (Sec. II.D.).

11. Comment:

The proposed diking and compacting measures for deposited ash do not appear adequate when considering the heavy winds that are common to this area. The statement should further evaluate the adequacy of these proposed methods.

Response:

As stated on page II-127 of the draft statement the method of depositing of the fly ash (diking and compacting) is subject to the requirements of Arizona's reulations on fugitive dust (R9-3-302). The final statement has been revised to reflect additional methods of dust control that will be employed in the fly ash disposal area (Sec. II.D.).

United States Department of the Interior

NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

IN REPLY REFER TO:
L7619(460)

MAY 2 1977

Memorandum

To: Commissioner, Bureau of Reclamation

Through: Assistant Secretary for Fish and Wildlife and Parks

From: Acting Assistant Director, National Park Service

Subject: Draft Environmental Statement - Coronado Project (DES 77-2)

Please include the following comments on air quality which were inadvertently omitted from our comments of March 31, 1977.

Air Quality

Additional information and analysis concerning air pollution impacts should be included in the statement. We are especially concerned about impacts on the natural and scenic resources of Petrified Forest National Park and on visibility and esthetic impacts generally.

Information on the plants compliance with the prevention of significant deterioration (PSD) regulations (40 CFR Part 52) should be included and analyzed in the statement. The National Park Service supports PSD Class I designation for units of the National Park System possessed of unique natural and scenic values. From the data presented on page II-113 it is not clear whether PSD Class I pollution levels for Petrified Forest National Park would be exceeded. The final statement should clarify this point.

In the discussion on Visibility on page II-120 it appears that the synergistic impacts of SO_2, NO_x, and particulate have not been fully evaluated. The National Park Service has done some work in this field and the results are contained in our report entitled "Analysis of Kaiparowits" study. We are pleased to note that a vantage point within Petrified Forest National Park was used for the present visibility analysis. We recommend that the analysis be reevaluated as appropriate to assess all air pollutants that will affect visibility. Further an analysis of overall visibility impacts should be included in the final statement.

John W. Hannaberger

Reply to Comments
by
National Park Service

Memorandum dated May 2, 1977

1. Comment:

Additional information and analysis concerning air pollution impacts should be included in the statement. We are especially concerned about impacts on the natural and scenic resources of Petrified Forest National Park and on visibility and esthetic impacts generally.

Response:

The primary impacts expected on the Petrified Forest National Park are expected to be from somewhat reduced visibility. Section II.C.3.b. of the final environmental statement discusses the impacts on local visibility due to the Coronado Project.

2. Comment:

Information on the plants compliance with the prevention of significant deterioration (PSD) regulations (40 CFR Part 52) should be included and analyzed in the statement. The National Park Service supports PSD Class I designation for units of the National Park System possessed of unique natural and scenic values. From the data presented on page II-113, it is not clear whether PSD Class I pollution levels for Petrified Forest National Park would be exceeded. The final statement should clarify this point.

Response:

Other commentors expressed concern about prevention of significant deterioration and the reader is referred to letter No. 14 dated February 28, 1977, from the New Mexico Environmental Improvement Agency.

While it is recognized that Federal rules and regulations concerning PSD had not been promulgated at the time that construction at the Coronado Project commenced and that, therefore, any planning information on PSD was minimal, it should be pointed out that the requirements for PSD as contained in 40 CFR 52.21 have been met. This can be pointed out as follows:

1) 40 CFS 52.21 designated all areas as Class II, therefore, the impact analysis to this ES is based on Class II lands. Until such time as redesignation might be effective, concern should be that Class II rather than Class I increments be met.

2) Even if Class I increments were of concern, Table II-39 (formally shown on page II-113 of the draft statement) shows that the maximum incremental concentrations of SO_2 attributable to all three units of Coronado in the immediate vicinity of the Petrified Forest National Park would be 21 or 23 micrograms per cubic meter 3-hour average and 4 to 5 micrograms per cubic meter 24-hour average. It should be recognized that these values are so low that they are not only within Class I increments but are also below the threshold of the EPA reference measurement method (see appendix A of 40 CFS 50). Additionally, they are well below those concentrations now being measured in the Petrified Forest National Park (as identified in the booklet, Air Quality Data for Arizona, July, 1977, by the Arizona Department of Health Services).

3) EPA has determined that the Coronado Generating Station is not subject to the limitations set forth in 40 CFR 52 on significant deterioration (see response to comment No. 2 of letter No. 14 from The New Mexico Environmental Improvement Agency). This exemption includes all three units of the Coronado Generating Station for impact analysis purposes.

4) If one assumes that unit #3 must by itself meet the provisions of 40 CFR 52.21, then about one-third of the values shown on Table II-39 would be expected to be the pollutant contribution of unit #3. Concentrations attributable to units #1 and #2 would be considered "baseline air quality concentrations". Unit #3 incremental concentrations in the immediate vicinity of the Petrified Forest National Park would be as follows: 3-hour average 7-8 micrograms per cubic meter; 24-hour average, 1-2 micrograms per cubic meter. These would be well within the Class I limitations of 25 and 5, respectively. A further discussion of the effects of Prevention of Significant Deterioration has been added to Section II.C.3.a.(3)(d).

3. Comment:

In the discussion on Visibility on page II-120, it appears that the synergistic impacts of SO_2, NO_x and particulate have not been fully evaluated. The National Park Service has done some work in this field and the results are contained in our report entitled "Analysis of Kaiparowits" study. We are pleased to note that a vantage point within Petrified Forest National Park was used for the present visibility analysis. We recommend that the analysis be reevaluated as appropriate to assess all air pollutants that will affect visibility. Further an analysis of overall visibility impacts should be included in the final statement.

Response:

The visibility evaluation contained in the draft environmental statement in section II.C.3.b. remains valid. A full evaluation or reevaluation of visibility impacts of both primary and secondary emissions cannot be accomplished until a more definitive understanding of the atmospheric chemical actions and reactions is realized. Much study is underway by the Electric Power Research Institute, EPA and others to define oxidation rates, etc., in power plant plumes in the arid southwest. Preliminary results show that the rate of generation of particles of sufficient size to scatter light, and thus affect visibility, is far lower than found in other more humid areas. Visibility modeling efforts are highly dependent upon this rate of generation and remain at best only a means of crude approximation.

The most effective means for evaluation of visibility change of impact is the repeatable in-situ measurement method. Unfortunately, this is not a predictive tool except through trend or comparative analysis. The methods include:

1) The Park Service's technique of determining whether distant vistas or check points can be seen and the clarity with which they can be seen,

2) the National Weather Service's long record of visibility observations at select stations,

3) the photometric technique as used to obtain background preoperation visibility at a vantage point within the Petrified Forest National Park and at St. Johns airport, and

4) visibility related measurements such as by high volume sampler, nephelometer, condensation nuclei counter, pyranometer, transmissometer, etc.

An expanded discussion of the synergistic effects of SO_2, NO_x and particulate is contained in Section III.C.3.b.

Do not type to the left of dotted line. AZ-189

COVER SHEET for FEDERAL GRANT APPLICATION/AWARD NOTIFICATION
ARIZONA

1. APPLICATION DATE yr mo day 19 ____

ITEMS 1-31 TO BE COMPLETED BY APPLICANT OR CLEARINGHOUSE DEPENDING UPON STATE PROCEDURES

3. APPLICANT Land Management, Department of Interior & Forest Service — 4. ADDRESS – Street or P. O. Box: PO Box 427

2. FEDERAL EMPLOYER ID NO.

5. CITY: Boulder City — 6. COUNTY — 7. STATE: NV — 8. ZIP CODE: 89005 — 9. PROG NO./FEDERAL AGENCY: 15.999 Dept. of the Interior, Bureau of Reclamation

10. TYPE OF ACTION: a ☒ New b ☐ Modification c ☐ Continuation

TYPE OF CHANGE (Complete if 10b or 10c was checked): 11. a ☐ Increased Dollars b ☐ Decreased Dollars; 12. a ☐ Increased Duration b ☐ Decreased Duration; 13. a ☐ Other Scope Change b ☐ Cancellation

14a. EXISTING FED GRANT ID

14b. EXISTING CLEARINGHOUSE ID

15. REQUESTED FUND START 18 yr mo

16. FUNDS DURATION ____ (Months)

17. EST. PROJECT START 18 yr mo

18. EST. PROJECT DURATION ____ (Months)

19. APPLICANT TYPE — Enter Letter K

A. State; B. Interstate; C. COG; D. County; E. City; F. School District; G. Special Unit; H. Community Action Agency; I. Sponsored Organization; J. Indian; K. Other

Funds Requested At This Time

20a. FEDERAL GRANT / / $ ____ .00
20b. FEDERAL LOAN / / $ ____ .00
21. STATE / / $ ____ .00
22. LOCAL / / $ ____ .00
23. OTHER / / $ 1 .00
24. TOTAL (20,21,22,23) / / $ ____ .00

PART 1

25. BRIEF TITLE OF APPLICANT'S PROJECT: CORONADO PROJECT - DRAFT ENVIRONMENTAL STATEMENT - INT DES 77-2

26. PROJECT ABSTRACT (60 Characters Per Line – 5 Lines). ALSO Attach 1 or 2 Page Project Summary For Review.
This statement describes the environmental impacts associated with the Salt River Project's proposed electrical generating plant at St. John's, Az. and associated facilities. The purpose of the project is to provide for the future electrical energy needs of the Phoenix Metro area in Maricopa Co., and for the increased electrical demands of the Eastern Mining Area.

27. AREA OF PROJECT IMPACT (Indicate City, County, State, etc.): Apache, Navajo, Greenlee, Gila, Maricopa Counties, Arizona

28. CONGRESSIONAL DISTRICT: Of Applicant: ____ Of Project: 01 04

29. Environmental Assessment Required By State/Federal Agency? ☒ Yes ☐ No If Yes, Attach.

30. CLEARINGHOUSE(S) TO WHICH SUBMITTED: a ☐ State b ☒ Area Wide

31. a. NAME OF CONTACT PERSON: Manuel Lopez, Jr. Regional Dir. — b. ADDRESS – Street or P. O. Box: Bureau of Reclamation P.O. Box 427, Boulder City, Nevada — c. TELEPHONE NO.: 293-8464 (702)

31. d. IF STATE AGENCY: WILL PROJECT REQUIRE NEW POSITION ☐ YES ☐ NO; WILL PROJECT SUPPORT EXISTING POSITIONS ☐ YES ☐ NO

31. e. MATCHING RATIO: FEDERAL ____ STATE ____ LOCAL ____

ITEMS 32-38 TO BE COMPLETED BY CLEARINGHOUSE

32. CLEARINGHOUSE ID: 200 — MULTIPLE CLEARINGHOUSE: ☒ 201 203 205 206

33. a. ACTION BASED ON REVIEW OF: a ☒ Application b ☐ Notification

34. a. ACTION TAKEN: a ☒ With Comment b ☐ Without Comment c ☐ Waived d ☐ Unfavorable

34. STATE APPLICATION IDENTIFIER (SAI): A 2 77 8 0 0 0 1 0 1 4 (State Number)

35. CLEARINGHOUSE IMPACT CODE: ☐ Yes ☒ No

STATE WIDE	County/City Ping Area	County/City Ping Area	County/City Ping Area	County/City Ping Area	County/City Ping Area	County/City Ping Area
	001	017	011	007	013	

36. STATE PLAN REQUIRED: ☐ Yes ☒ No

37. DATE AT CLEARINGHOUSE: yr mo day 19 77 04 17

38. FINAL CLEARINGHOUSE ACTION DATE: yr mo day 19 77 04 04 — Name: Jo Shangedlord — Title: Director

ITEMS 39-42 TO BE COMPLETED BY APPLICANT BEFORE SENDING FORM TO FEDERAL AGENCY

PART 2

39. CERTIFICATION – The applicant certifies that to the best of his knowledge and belief the above data are true and correct and filing of this form has been duly authorized by the governing body of the applicant.

40. a. NAME (Print or Type) — b. TITLE — c. SIGNATURE of Authorized Representative — d. TELEPHONE NUMBER

41. DATE MAILED TO FEDERAL STATE AGENCY: yr mo day 19 ____

42. NAME OF FEDERAL / STATE AGENCY TO WHICH THIS APPLICATION SUBMITTED

ITEMS 43-56 TO BE COMPLETED BY FEDERAL OFFICE EVALUATING AND RECOMMENDING ACTION ON THE APPLICATION

43. GRANT APPLICATION ID (Assigned by Federal Agency)

44. GRANTOR AGENCY

52. Application Rec'd. yr mo day 19 ____

53.a Exp. Action Date yr mo day 19 ____

Always Complete 53.a OR b

53.b Rec. to Applicant yr mo day 19 ____

REVISIONS: Amended Applic. Received yr mo day 19 ____ 19 ____ 19 ____

Rev. Expected Action Date yr mo day 19 ____ 19 ____ 19 ____

54. Exp. Action Revised As Of yr mo day 19 ____ 19 ____ 19 ____

Subsequent Rec'd. to Applicant yr mo day 19 ____ 19 ____ 19 ____

PART 4

45. ORGANIZATIONAL UNIT

46. ADMINISTERING OFFICE

47. ADDRESS – Street or P. O. Box — 48. CITY — 49. STATE — 50. ZIP CODE — 51. TELEPHONE NUMBER

ITEMS 55-65 TO BE COMPLETED BY THE FEDERAL OFFICE APPROVING THE GRANT APPLICATION

FINAL ACTION — FINAL DATES yr mo day

55. a. ☐ Awarded b. ☐ Rejected c. ☐ Withdrawn 19 ____

56. FUNDS AVAILABLE 19 ____

57. ENDING DATE 19 ____

58. FEDERAL GRANT ID

59. FEDERAL FUND ACCOUNT NUMBER

FUNDS APPROVED (For Changes Show Only Amt. of Inc. (+) or Dec. (-).)

60. FEDERAL AMOUNT (If Y ____ funds) / / $ ____ .00
61. STATE SHARE / / $ ____ .00
62. LOCAL SHARE / / $ ____ .00
63. OTHER / / $ ____ .00
64. TOTAL (60, 61, 62, 63) / / $ ____ .00

PART 5

65. MULTIPLE PROGRAM - LINK

PART 6

66. REMARKS

7/74

Northern Arizona Council of Governments

P.O. BOX 57 • FLAGSTAFF, AZ - 86001 • (602) 774-1895

WILLIAM C. WADE
EXECUTIVE DIRECTOR

Regional A-95 Review

TO: Ms. Jo Youngblood
Arizona State Clearinghouse
1700 W. Washington, Room 505
Phoenix, AZ 85007

RE: Project: Bureau of Reclamation (Lead Agency), BLM, Forest Service
Coronado Project - Draft Environmental Statement
S.A.I. #: 77-80-0004

The Northern Arizona Council of Governments (NACOG) has completed its A-95 Review and Comment upon the above project. Action taken on this project notification is as follows:

☐ Proposal supported as described on the AZ-189 and any attachments.

☐ Proposal is supported with certain recommendations, provisions, etc.

X No comment on this proposal at this time.

☐ Proposal is not supported.

Please be aware that NACOG reserves the prerogative of making additional comments should new information become available to the Agency.

The Northern Arizona Council of Governments has appreciated this opportunity to review and comment on this project.

Thank you.

W C Wade

William C. Wade
Executive Director

Date: March 9, 1977

THIS A-95 REVIEW IS SUPPORTED IN PART BY A HUD 701 PLANNING GRANT.

TO:

Dr. Suzanne Dandoy, Director
Department of Health Services
1740 West Adams Street
Phoenix, Arizona 85007

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

Economic Sec.
Mineral Res.
Indian Affairs
Game & Fish
Ag. & Hort.
AZ. Mining Ass'n
Arid Lands Studies
Environmental Studies
Archaeological Res.
SW Minerals Explor.
Prescott Hist. Soc.
Museum of No. Az.
Renewable Nat'l Res.
OEPAD - Dave

Atomic Energy
Emergency Svcs
Energy Program
Highway
Health
Water
AORCC
Power
Land
Parks
Bureau of Mine
Public Safety
Region I, III, V, V

This project is referred to you for review and comment. Please evaluate as to:

(1) the program's effect upon the plans and programs of your agency
(2) the importance of its contribution to State and/or areawide goals and objectives
(3) its accord with any applicable law, order or regulation with which you are familiar
(4) additional considerations

Please return this form to the clearinghouse no later than 15 working days from the date noted above. Please contact the clearinghouse if you need further information or additional time for review.

++++ We were mailed a limited amount of books. For additional copies or additional information please call the contact person listed on line 31. a (Mr. Manuel Lopez).

- [ ] No comment on this project
- [ ] Proposal is supported as written
- [x] Comments as indicated below

Comments: (Use additional sheets if necessary)

See Attachment

Reviewer's Signature R. Bruce Scott Date MAR 22 1977

~~ASSISTANT DIRECTOR~~
ARIZONA DEPT. OF HEALTH SERVICES
DIV. OF ENVIRONMENTAL HEALTH SERVICES

Title

Telephone

The Arizona Department of Health Services requests that in the final environmental impact statement there are items which will require additional attention as follows:

1. There is a need to be more specific on the type of SO_2 control. Such as how arranged, how much flue gas bypassed, how many scrubber modules, are there cross connections?

2. More information on the precipitators is needed. Such as physical arrangement, efficiency now and after they have been on the line for awhile. Who will supply the units?

3. There is no mention of continuous monitoring of effluents from the stack. What kind, how they operate, where, etc.

4. There is no mention of stack testing platforms. How high, how ports will be arranged. Specific problems that need to be overcome because of having two stacks in one liner.

5. Additional attention should be given to the fly ash dumping into haul trucks. This is a problem in similar plants. Possibly completely enclose the drop chutes to trucks and syphon off air through a baghouse.

6. Four and one-half miles of unpaved haul road from the limestone quarry will undoubtedly need to be paved to prevent excessive fugitive dust.

7. Coal analysis is done after the coal is burned, even though a sample is collected before burning.

8. It is recommended that some sort of system of feedback or analysis prior to burning should be investigated so that plant personnel can anticipate problems of excessive ash or sulfur in feed and thereby possibly prevent a strain on the air pollution control equipment.

TO: John J. DeBolske, Exec. Dir
Maricopa Ass'n of Governments
1820 W. Washington Street
Phoenix, AZ 85007

0254

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

This project is referred to you for review and comment. Please evaluate as to:

(1) the program's effect upon the plans and programs of your agency
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Mineral Res.
Indian Affairs
Game & Fish
Ag. & Hort.
AZ. Mining Ass'n
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Archaeological Res.
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Prescott Hist. Soc.
Museum of No. Az.
Renewable Nat'l Res.
OEPAD - Dave

Atomic Energy
Emergency Svcs
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Health
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Land
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Bureau of Mine
Public Safety
Region I, III, V, V

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++++ We were mailed a limited amount of books. For additional copies or additional information please call the contact person listed on line 31. a (Mr. Manuel Lopez).

☒ No comment on this project
☐ Proposal is supported as written
☐ Comments as indicated below

Comments: (Use additional sheets if necessary)

Reviewer's Signature: Jim Driggs Date: 3/8/77

Title: STAFF Telephone:

MARICOPA ASSOCIATION OF GOVERNMENTS
1820 WEST WASHINGTON PHOENIX, ARIZONA 85007 (602) 254-6308

February 22, 1977

TO: Mr. Ken Fooks, Hohokam RC&D

FROM: Clearinghouse Staff Contact: Ken Driggs

SUBJECT: Project Notification and Review

Applicant: Bureau of Reclamation

Project Title: Coronado Project - Draft Environmental Stmt.

State Application Identifier: 77-80-0004

MAG Log Number: 0256

A copy of an A-95 application form AZ-189 along with supporting project documentation is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Please return ONLY THIS completed form within fifteen (15) days of your receipt of this request.

- [x] No comment on the above project.
- [ ] Proposal is supported as written.
- [ ] Project is unfavorable. (Reason stated below)
- [ ] Comments are attached.

Please contact the Applicant and advise the Clearinghouse should you desire a conference with the Applicant, further information, or need additional time for review.

Kenneth Fooks
Authorized Representative

Ch. Hohokam RC&D Project
Agency

TO:

Mr. Les Ormsby, Admin.
Arizona Power Authority
1810 West Adams Street
Phoenix, Arizona 85005

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5095
Phoenix, Az. 85007

This project is referred to you for review and comment. Please evaluate as to:

(1) the program's effect upon the plans and programs of your agency
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(3) its accord with any applicable law, order or regulation with which you are familiar
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OEPAD - Dave

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☒ No comment on this project
☐ Proposal is supported as written
☐ Comments as indicated below

Comments: (Use additional sheets if necessary)

Reviewer's Signature L Ormsby Date 3/7/77

Title Telephone

Tom Lynch, Chief
Energy Programs
Room 507
1700 W. Washington
Phoenix, Arizona 85007

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

rom: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5C 5
Phoenix, Az. 85007

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Prescott Hist. Soc.
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Renewable Nat'l Res.
OERAD - Dave

Atomic Energy
Emergency Svcs
Energy Programs
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Water
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Parks
Bureau of Mines
Public Safety
Region I, III, V, VI

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++++ We were mailed a limited amount of books. For additional copies or additional information please call the contact person listed on line 31. a (Mr. Manuel Lopez).

- ☐ No comment on this project
- ☐ Proposal is supported as written
- ☐ Comments as indicated below

Comments: (Use additional sheets if necessary)

Reviewer's Signature T Lynch Date 3-2-77

Title Chief Energy Programs Telephone 271-5323

TO:

Michael A. Ramnes, Director
Arizona State Parks
1688 W. Adams Room 109
Phoenix, Arizona 85007

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

This project is referred to you for review and comment. Please evaluate as to:

(1) the program's effect upon the plans and programs of your agency
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OEPAD - Dave

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Region I, III, V, V

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☑ No comment on this project
☐ Proposal is supported as written
☐ Comments as indicated below

++++ We were mailed a limited amount of books. For additional copies or additional information please call the contact person listed on line 31. a' (Mr. Manuel Lopez).

Comments: (Use additional sheets if necessary)

Reviewer's Signature Allen Gross

Date 3/1/77

Rec Pl 11

Telephone 2714174

TO: Mr. Roger Root, Acting Chief
Office of Planning
Dept. of Econ. Security
1717 W. Jefferson Street
Phoenix, Arizona 85007

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 50[illegible]5
Phoenix, Az. 85007

Economic Sec.
Mineral Res.
Indian Affairs
Game & Fish
Ag. & Hort.
AZ. Mining Ass'n
Arid Lands Studies
Environmental Studies
Archaeological Res.
SW Minerals Explor.
Prescott Hist. Soc.
Museum of No. Az.
Renewable Nat'l Res.
OFRAD - Dave

Atomic Energy
Emergency Svcs
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Bureau of Mine
Public Safety
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☐ No comment on this project
☒ Proposal is supported as written
☐ Comments as indicated below

Comments: (Use additional sheets if necessary)

Reviewer's Signature Dick Hallmark Date 22 Feb 1977

Title State Planner Telephone 271-5984

TO: Mr. William H. Dresher
Dean, College of Mines
Dir., AZ Bureau of Mines
The University of Arizona
Tucson, Arizona 85721

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

Economic Sec.
Mineral Res.
Indian Affairs
Game & Fish
Ag. & Hort.
AZ. Mining Ass'n
Arid Lands Studies
Environmental Studies
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OEPAD - Dave

Atomic Energy
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☒ No comment on this project
☐ Proposal is supported as written
☐ Comments as indicated below

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FEB 1978 COLLEGE OF MINES UNIVERSITY OF ARIZONA

Comments: (Use additional sheets if necessary)

Reviewer's Signature William H. Dresher Date Feb. 28, 1977

William H. Dresher
Title Director Telephone 884-1401

TO:

Mr. Clinton M. Pattea
Executive Secretary
Indian Affairs Commission
1645 West Jefferson St.
Phoenix, AZ 85007

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-000

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

Economic Sec.
Mineral Res.
Indian Affairs
Game & Fish
Ag. & Hort.
AZ. Mining Ass'n
Arid Lands Studies
Environmental Studies
Archaeological Res.
SW Minerals Explor.
Prescott Hist. Soc.
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Renewable Nat'l Res.
OEPAD - Dave

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☑ No comment on this project
☐ Proposal is supported as written
☐ Comments as indicated below

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Comments: (Use additional sheets if necessary)

Reviewer's Signature Clinton M. Pattea Date 2-25-77

Title Telephone

TO:

Vernon L. Hoy, Director
Dept. of Public Safety
P.O. Box 6638
Phoenix, Arizona 85005

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5015
Phoenix, Az. 85007

Economic Sec.
Mineral Res.
Indian Affairs
Game & Fish
Ag. & Hort.
AZ. Mining Ass'n
Arid Lands Studies
Environmental Studies
Archaeological Res.
SW Minerals Explor.
Prescott Hist. Soc.
Museum of No. Az.
Renewable Nat'l Res.
OEPAD - Dave

Atomic Energy
Emergency Svcs
Energy Program
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Region I, III, V, VI

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☐ No comment on this project
☑ Proposal is supported as written
☐ Comments as indicated below

++++ We were mailed a limited amount of books. For additional copies or additional information please call the contact person listed on line 31. a (Mr. Manuel Lopez).

Comments: (Use additional sheets if necessary)

evi[illegible]'s Signature K.E. Shafer

Date 2-23-77

tle LCOL ADMIN. BUREAU CHIEF

Telephone

TO: Mr. David Landrith, Executive
Director, SEAGO
118 Arizona Street
Bisbee, Arizona 85603

MOP 77-54
State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

Economic Sec.
Mineral Res.
Indian Affairs
Game & Fish
Ag. & Hort.
AZ. Mining Ass'n
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OEPAD - Dave

Atomic Energy
Emergency Svc:
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☒ No comment on this project
☐ Proposal is supported as written
☐ Comments as indicated below

Comments: (Use additional sheets if necessary)

Reviewer's Signature [signature] Manager

Date March 8, 1977

Title Regional Environmental & Economic Development Planning Division

Telephone 432-2237

TO: Dr. R. Gwinn Vivian
Arizona State Archaeologist
Arizona State Museum
Tucson, AZ 85721

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 505
Phoenix, Az. 85007

Economic Sec.
Mineral Res.
Indian Affairs
Game & Fish
Ag. & Hort.
AZ. Mining Ass'n
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OEPAD - Dave

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☐ No comment on this project
☒ Proposal is supported as written
☐ Comments as indicated below

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Comments: (Use additional sheets if necessary)

Reviewer's Signature [signature] Date March 23, 1977

Title Associate Archaeologist Telephone 884-1761

Mr. Sidney S. Goodman, Jr.
Executive Director
Central Az. Ass'n of Gov'ts
512 E. Butte Ave.
Florence, Arizona 85232

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

This project is referred to you for review and comment. Please evaluate as to:

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☒ No comment on this project
☐ Proposal is supported as written
☐ Comments as indicated below

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Comments: (Use additional sheets if necessary)

Reviewer's Signature Emmett R. McNulty

Date March 21, 1977

Title Acting Director

Telephone 868 5878

TO:

Mr. Roland H. Sharer
State Liaison Officer, AORCC
4433 N. 19th Ave., Suite 203
Phoenix, Arizona 85015

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

Economic Sec.
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OPEAD - Dave

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☒ No comment on this project
☐ Proposal is supported as written
☐ Comments as indicated below

Comments: (Use additional sheets if necessary)

Reviewer's Signature R H Sharer Date Feb 22, 1977

Title State Liaison Officer Telephone 271-5013

TO:

Col. George B. Jordan, Dir.
Div. of Emergency Services
5636 East McDowell Road
Phoenix, Arizona 85008

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

Economic Sec.
Mineral Res.
Indian Affairs
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Prescott Hist. Soc.
Museum of No. Az.
Renewable Nat'l Res.
OEPAD - Dave

Atomic Energy
Emergency Svcs
Energy Program
Highway
Health
Water
AORCC
Power
Land
Parks
Bureau of Mines
Public Safety
Region I, III, V, V

This project is referred to you for review and comment. Please evaluate as to:

(1) the program's effect upon the plans and programs of your agency
(2) the importance of its contribution to State and/or areawide goals and objectives
(3) its accord with any applicable law, order or regulation with which you are familiar
(4) additional considerations

Please return this form to the clearinghouse no later than 15 working days from the date noted above. Please contact the clearinghouse if you need further information or additional time for review.

++++ We were mailed a limited amount of books. For additional copies or additional information please call the contact person listed on line 31. a (Mr. Manuel Lopez).

☐ No comment on this project
☒ Proposal is supported as written
☐ Comments as indicated below

Comments: (Use additional sheets if necessary)

Reviewer's Signature George B. Jordan Date Feb 24, 1977

Title Director of Division of EMERG SERVICES Telephone 271-4671

TO:

Mr. Donald C. Gilbert, Exec.Dir.
Arizona Atomic Energy Comm.
1601 West Jefferson Street
Phoenix, AZ 85007

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-0004

From: Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

Economic Sec.
Mineral Res.
Indian Affairs
Game & Fish
Ag. & Hort.
AZ. Mining Ass'n
Arid Lands Studies
Environmental Studies
Archaeological Res.
SW Minerals Explor.
Prescott Hist. Soc.
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☐ Proposal is supported as written
☐ Comments as indicated below

Comments: (Use additional sheets if necessary)

Reviewer's Signature Donald C. Gilbert Date 2-18-77

Title Exec Director Telephone 271-4845

TO: Dr. James Schoenwetter
Center for Environmental Studies
Department of Anthropology
Arizona State University
Tempe, AZ 85281

State Application Identifier (SAI)

Feb. 17, 1977 State Az. Number 77-80-000

F Mrs. Jo Youngblood, Az. State Clearinghouse
1700 West Washington, Room 5005
Phoenix, Az. 85007

Economic Sec.
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Indian Affairs
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☐ No comment on this project
☐ Proposal is supported as written
☒ Comments as indicated below

Comments: (Use additional sheets if necessary)

Reviewer's Signature James Schoenwetter
CENTER FOR ENVL STUDIES

Date 28 Mar 77

Title

Telephone

77-80-0004

Much commendable work is represented by the Coronado Project - Draft Environmental Statement.

The project is launched in anticipation of population growth, and industrial-commercial growth, with consequent response by SRP of increasing electricity supply. The assumption must be made that the required adjustment of uses of water will occur.

The question rises: Why all the increase of power generation in Arizona? Is all electricity generated in Arizona now, used in Arizona? Will all electricity generated in Arizona in the near future (as projected) be consumed in Arizona? Are the summary gains for Arizona equal to the summary costs for Arizona? Will there be imbalance between the electricity supply and the water supply within the state?

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What activities will be excluded by the water drww-down for the generator?

In general, there is more description of the plant than of the impacts. The discussion of social impacts is scant, in comparison with the extent of the document.

There is no comment on the effects of microwaves.

RJ Becker

R. J. Becker
Center for Public Affairs
ASU

March 1977

Arizona Commission of
Agriculture and Horticulture
1688 WEST ADAMS • PHOENIX, ARIZONA 85007 • 271-4373

February 28, 1977

77-80-0004

Mr. Manuel Lopez, Jr.
Regional Director
Bureau of Reclamation
P.O. Box 427
Boulder City, Nevada 89005

RE: Coronado Project INT DES 77-2
PROG NO. 15.999 Dept. of Interior - Bureau of Reclamation

Dear Mr. Lopez:

In regard to electrical transmission lines being established on right of ways in Apache, Navajo, Greenlee, Gila and Maricopa Counties where protected native plants listed in the Native Plant Law may be removed or destroyed.

Under Arizona Revised Statutes 3-904-E any person or persons owning land in Arizona where the removal or destruction of protected native plants is to occur are required to notify the Arizona Commission of Agriculture and Horticulture ten days prior to these actions. This notification is necessary to allow the Commission to arrange the setting aside or salvaging of these plants so they are not destroyed. Enclosed is a copy of the Native Plant Law for reference.

Your attention to this matter will be greatly appreciated.

Cordially yours,

R. A. Countryman
Assistant Director

RAC:db

cc: R. K. Perry

Enclosure

Arizona Commission of
Agriculture and Horticulture
1688 WEST ADAMS • PHOENIX, ARIZONA 85007 • (602) 271-4373

ARIZONA NATIVE PLANT LAW

Arizona Revised Statutes, Chapter 7

ARTICLE 1. PROTECTION

Sec. 3-901. Protected group of plants; botanical names govern; power to add or remove plants

A. The botanical names of the plants referred to in this article shall in all cases govern in the interpretation of this article. Protected native plants shall be any plant or part thereof, except its fruit, named in the protected group which is growing wild on state land or public land or on privately owned land without being propogated or cultivated by human beings and the dead plants or parts thereof of those plants which are named in subsection C, paragraph 4, of this section.

B. The following shall constitute certain protected native plants that are prohibited from collection except for scientific or educational purposes under permit from the commission of agriculture and horticulture: Washingtonia filifera (fan palm), lysiloma thornberi (ornamental tree), bursera fagaroides (elephant tree), cereus schottii (senita or "old one"), cereus thurberi (organ pipe cactus), toumeya papyracantha, toumeya peeblesiana, neoevansia diguetii (dahlia cactus), pediocactus paradinei, all pediocactus species, all sclerocactus species and all agave arizonica.

C. The following shall constitute the protected group of plants:

1. All species of the following families: liliaceae (lily family), amaryllidaceae (amaryllis family), orchidaceae (orchid family), crassulaceae (orpine family), cactaceae (cactus family).

2. All species of the following genera: aquilegia (columbine), lobelia (lobelia), dodecatheon (shooting star), primula (primrose), fouquieria (ocotillo).

3. The following species: atriplex hymenelytra (desert holly), cercis occidentalis (western redbud), dalea spinosa (smoke tree), holacantha emoryi (crucifixion thorn), fremontia californica (flannel bush), pinus aristata (bristlecone pine), rhus kearneyi (kearney sumac), sapium biloculare (Mexican jumping bean) and sabastiana pavoniana (Mexican jumping bean).

4. The following species of live or dead plants or parts thereof shall include: prosopis juliflora (common or honey mesquite), prosopis pubescens (screwbean mesquite), cercidium microphyllum (little leaf palo verde), cercidium floridum (blue palo verde), parkinsonia aculeatal (jerusalem thorn, long leaf palo verde), olneya tesota (ironwood tree).

D. The Arizona commission of agriculture and horticulture may, after public hearing, add or remove any native plant to or from the protected group. A public hearing on native plants shall be held at least every twelve months.

Sec. 3-902. Native plant permits and tags; fees; regulatory powers of commission

A. The commission of agriculture and horticulture shall issue permits, wood receipts, tags and seals for a fee as prescribed by the commission, which fee shall not be less than one dollar per plant for all native plants except cereus giganteus (saguaro) and not less than two dollars per plant for each cereus giganteus (saguaro), except for trees, live or dead, mesquite, palo verde or ironwood species of trees cut or removed for wood, as provided in subsection C, which fee shall not be less than one dollar per cord, to persons who take protected native plants from their original growing sites. The permit shall specify the species of protected native plants which may be taken, the area from which plants may be taken and the manner in which plants may be taken. No person, except as provided in this article, shall take or transport or have in his possession any protected native plant from its original growing site in the state of Arizona unless at the time of taking he has a valid permit therefor on his person, a valid wood receipt where required, attaches the tags and seals as may be required to the native plants at the time of taking, and exhibits the permit, wood receipt and tags and seals upon request for inspection by any duly authorized agent of the Arizona commission of agriculture and horticulture or by any peace officer as provided for in this chapter. No wood receipt or tag and seal is valid unless it is issued with a valid permit and such permit bears the tag number or wood receipt on its face.

B. With each permit authorizing the taking, transporting or possessing of protected native plants, except trees cut or removed for wood as provided in subsection C, the commission shall provide such tags and seals as the commission may prescribe, which the permittee or his agent shall attach to the protected native plants at the time of taking and before transporting and in such manner as prescribed by the commission. After any protected native plant has been legally taken and tagged as provided by this article, it shall be unlawful to remove such tag or seal until the plant has been transplanted into its ultimate site for landscaping or beautification purposes. Removal of the tag or seal from the plant shall be only by an agent of the commission or by the ultimate owner of the plant, who shall

retain such tag or seal as proof of ownership. No permit or tag or seal as such is transferable by the permittee or his agent, nor shall it be used by anyone except that person to whom such permit or tag or seal was issued, nor shall it be used for more native plants than indicated thereon and no refunds shall be made for the purchase thereof. Any permittee shall be responsible for the acts of any other person or persons acting under any authority expressed or implied of the permittee.

C. With each permit authorizing the taking, transporting or possessing of live or dead mesquite, palo verde or ironwood species of trees which are cut or removed for wood, the commission of agriculture and horticulture shall provide such wood receipts as the commission may prescribe, which must be in the possession of the person taking, transporting or possessing the tree. No permit or wood receipt as such is transferable by the permittee or his agent, nor shall it be used by anyone other than the person to whom such permit or wood receipt was issued, except that the wood receipt shall be transferred by the permittee to the purchaser of the cord of wood covered by the receipt as proof of ownership.

D. A person in possession of a valid permit for the removal of dead plants or wood issued by the United States department of agriculture for use on lands under the administration of the United States forest service shall be exempt from the required permit as defined in section 3-904.

E. The commission of agriculture and horticulture may make necessary rules and regulations not in conflict with this chapter for the enforcement of its provisions.

F. The commission of agriculture and horticulture is empowered and directed to enter in or upon any premises or other place, train, vehicle or other means of transportation within or entering the state, suspected of containing or having present therein or thereon protected native plants in violation of this article.

G. When any power or authority is given by any provision of this article to any person, it may be exercised by any deputy, inspector or agent duly authorized by such person. Any person in whom the enforcement of any provision of this article is vested has the power of a peace officer as to such enforcement, which shall include state, federal or Indian agencies with which cooperative agreements have been made by the commission to enforce any provisions of this article.

Sec. 3-903. Board of supervisors; power to preserve plants

The board of supervisors of each county is authorized to adopt and enforce ordinances not in conflict with law for the preservation of protected groups of plants.

Sec. 3-904. Taking of plants; permit; tag fees; importation; exceptions

A. Except as provided in this article, it shall be unlawful for any person to destroy, dig up, mutilate or take any living plant, or the living or dead parts of any trees, except fruit, of the protected group from state land or public land without obtaining a permit and any required wood receipts or tags and seals from the Arizona commission of agriculture and horticulture, or from private land without obtaining written permission from the landowner, and a permit and any required wood receipts or tags and seals from the commission of agriculture and horticulture. It shall be unlawful for any person to falsify any paper or document issued to give permission for any person to take native plants of the protected group or to take more native plants than authorized by the permit or to take native plants from areas other than those authorized by the permit.

B. The commission of agriculture and horticulture may give written permission for a person or a scientific or educational institution to take a definite number of specified plants in the protected group from areas specified by the commission for scientific or educational purposes. In addition the commission may give written permission for a person to take specific plants or parts of plants in the protected group from areas specified by the commission for manufacturing or processing purposes or for the cutting or removal of wood and assess reasonable and proper fees for such taking of the plants or parts thereof. It shall be unlawful, for any person or scientific or educational institution to misuse a permit in any manner.

C. Permits issued for the removal of native plants including live or dead mesquite, palo verde or ironwood species of trees, will be for a stated period of time to allow the permittee to remove the specific amount of plants or wood stated in the permit, or that period of time stated by the landowner as part of such landowner's permission, whichever is shorter. Such permit will expire on the termination date shown on such permit.

D. Any permit provided by subsections A and B shall expire when the tags and seals issued therewith have been attached to the plants covered by such permit and such plants are no longer in the possession of the permittee. Any permit shall be valid until expiration or for one year from date of issuance, whichever occurs first, except that any permit and the tags and seals or wood receipts issued therewith shall be null and void when the land on which the plants are growing, as described in the permit, changes ownership, unless the new owner certifies in writing that the permittee may continue taking such plants as specified on the permit.

E. Nothing in this article shall be construed to prevent the clearing of land, cleaning or removal of protected native plants from a canal, lateral ditch, survey line, building site, or road or other right-of-way by the owner of the land or his agent where

such protected native plants are not to be transported from the land or offered for sale and provided the commission is given at least ten days notice. Use of dead wood for branding fires or at permissible camping or cooking sites, for camping or cooking fires, is exempt from this section.

F. Nothing in this article shall be construed to prohibit any person from cutting, removing, transporting or possessing any dead mesquite, palo verde or ironwood in amounts less than one cord in quantity from land owned or leased by such person, other than state-owned land or other public land, or from land, the owner of which has given consent to such person to cut, remove, transport or use such wood.

G. The commission of agriculture and horticulture shall collect fees for the issuance of permits, tags and seals and wood receipts under this article, except for scientific and educational purposes, or for a landowner moving protected plants from one of his properties to another, providing that no such plants are to be offered for sale.

H. Any protected native plant found without a valid tag and seal securely and properly affixed thereto, or any mesquite, ironwood or palo verde wood found in the possession of a person without a valid wood receipt, may be confiscated as evidence of a violation.

Sec. 3-905. Shipment of plants; exhibition of permit and certificate of inspection to carrier

No person or common carrier shall transport a plant, or any part thereof, belonging to the protected group, nor receive or possess a protected native plant for transportation within or without the state, except for manufactured wood articles, unless the person offering the plant for shipment exhibits to the person or common carrier a valid written permit for the transportation of the plant or part thereof, and has securely and properly attached thereto a valid native plant tag and seal. If for transport without the state, the plant shall also bear a certificate of inspection by the commission. All protected native plant species or varieties, when not grown in Arizona and imported into this state, shall be declared at an Arizona agricultural inspection station or a district office of the commission, and proceed to destination under quarantine orders issued by agents of the commission employed at such station or district office.

Sec. 3-906. Arrests without warrant; confiscation of plants

A peace officer or an officer or employee of the commission of agriculture and horticulture may, in the enforcement of this article, make arrests without warrant for a violation of this article which he may witness, and may confiscate plants or parts thereof belonging to the protected group when unlawfully taken, transported, possessed, sold or otherwise in violation of this article.

Sec. 3-907. Violations: penalties

A. A person violating any provision of this article is guilty of a misdemeanor punishable by a fine of not less than one hundred dollars nor more than one thousand dollars for each violation or by imprisonment in the county jail not to exceed one year, or both, and each violation constitutes a separate offense.

B. Upon conviction of a violation of this article, all permits issued to the person convicted shall be revoked and the permittee shall be required to surrender any unused tags and seals or wood receipts to the commission and no new or additional permits shall be issued to the permittee for a period of ninety days from date of conviction.

Sec. 3-908. Arizona commission of agriculture and horticulture fund

A. All fees or monies collected under the provisions of this article shall be deposited with the state treasurer at the end of each month, who shall place it in a special fund which is created to be known as the Arizona commission of agriculture and horticulture fund.

B. Ninety per cent of all money deposited with the state treasurer shall constitute a separate and permanent fund for the use of the Arizona commission of agriculture and horticulture in the enforcement of the provisions of this chapter, and ten per cent shall be credited to the general fund of the state.

Approved by the Governor - June 27, 1976

Filed in the office of the Secretary of State - June 28, 1976

Effective - September 28, 1976

L. D. McCorkindale, Director and
State Entomologist

LDM:db

RAUL H. CASTRO

Commissioners:
WILLIAM H. BEERS, Prescott, Chairman
CHARLES F. ROBERTS, O.D., Bisbee
FRANK FERGUSON, JR., Yuma
MILTON G. EVANS, Flagstaff
C. GENE TOLLE, Phoenix

Director
ROBERT A. JANTZEN

Asst. Director, Operations
PHIL M. COSPER

Asst. Director, Services
ROGER J. GRUENEWALD

ARIZONA GAME & FISH DEPARTMENT

2222 West Greenway Road Phoenix Arizona 85023 942-3000

February 11, 1977

#77-80-0004

Mr. Manuel Lopez, Jr.
Regional Director
Lower Colorado Region
U.S. Bureau of Reclamation
P. O. Box 427
Boulder City, Nevada 89005

Dear Mr. Lopez:

Personnel of the Arizona Game and Fish Department have reviewed the Draft Environmental Statement (DES) for the Coronado Project dated January 14, 1977. We feel this DES could have been published in a somewhat more timely manner as construction of the project is already well underway. This can be evidenced by Figures 1-5 and 2-13. Also, pertaining to Figures 1-4, will the atmospheric conditions really appear this way during plant operation?

We wish to comment on several items in the DES including the drawdown effects caused by the planned pumping at the three well fields. At what point would the Salt River Project consider an overuse of groundwater to exist at a given field? For instance, are nearby farmers having problems with overdraft or insufficient water supplies at this time? Will a hydrologist or geologist be designated by the Salt River Project to monitor the well fields? Should the waste water ponds as discussed on page I-41 be monitored also in regard to leakage into the aquifers even though the ponds would be sealed. As far as the life of the entire project, how would such aspects as the plant site, the coal sources, and the limestone quarries be restored with vegetation?

There is a known antelope population in the vicinity of the plant site. Landowners along the railroad right-of-way should be informed about installing proper wildlife fencing. As stated on page II-188, "With improper fencing, the potential for bisection of the antelope range, and thus loss of valuable habitat, could have far-reaching effects on the species". The Salt River Project needs to make sure the adjoining landowners are aware of the problem. We would not like to see antelope-proof fences, but would prefer a wildlife fence to permit unrestrictive movement by these animals.

On page II-88, the DES discusses the various vegetative communities found in the project area. One of the communities described is "Badlands"; we are wondering, what is a Badland Community? It should perhaps be included under the sagebrush biome (Great Basin Desert with poor soils). It should not be separated out as an entity of its own.

Page II-105 says, "In addition, the construction of new roads and upgrading of old roads along the transmission lines will cause increased erosion. The cross-country travel during excavation for tower and pulling sites will expose additional acreage to erosion". We agree completely and would like to encourage the Placement of Towers and Conductor Stringing by Helicopter Alternative you present on pages III-56 and 57.

Our Department notes this on page II-107, "... that some 4,042 acres of land will be permanently lost. This amount is not significant when compared to the numbers of acres of land available for each type". We consider this to be rationalizing the project. This is not the only project in the state, and the habitat each one affects all adds up.

Page III-40, 2. Survey and Staking of the two 500 kv transmission lines, sections e and f contains ideas that is of concern to us. We do not feel that wildlife habitat should be sacrificed just so people will not be able to see the transmission lines. Screening transmission lines from public view is a rather poor excuse for destruction and ruination of good wildlife habitat.

Number (4) Watering Devices as mitigating devices on page II-178 would be beneficial in continuing a water supply for wildlife. However, we need to know how many of these devices would be installed and where. Our Department would be more than willing to assist in the placement of these devices or assist in any other mitigation plans Salt River Project intends to implement as a result of this project.

We appreciate the opportunity to comment on this Draft Environmental Statement. Please contact us if additional comments are desired.

Sincerely,

Robert A. Jantzen, Director

By: Robert D. Curtis, Chief
Wildlife Planning & Development

RDC:dd

cc: ~~Mrs. Jo~~ Youngblood, Arizona State Clearinghouse
Robert White, Supervisor, Region I

Reply to Comments by
Arizona State Clearinghouse

Letter dated April 4, 1977

This letter represented the results of a coordinated review of the environmental statement by several agencies within the State of Arizona. The letter transmitted the results of this review. It contained comments from 20 agencies. Of these agencies 16 either supported the project as described or had no comment whereas 4 agencies chose to comment. This section will consider the comments made by those 4 agencies.

Remarks by Arizona Department of Health Services:

1. Comment:

   There is a need to be more specific on the type of SO_2 control. Such as how arranged, how much flue gas bypassed, how many scrubber modules, are there cross connections?

   Response:

   This information was provided on page I-31 of the draft statement and may also be found in Section I.G.9.a. of the final statement.

2. Comment:

   More information on the precipitators is needed. Such as physical arrangement, efficiency now and after they have been on the line for awhile. Who will supply the units?

   Response:

   This information has been added to Section I.G.9.b. of the statement.

3. Comment:

   There is no mention of continuous monitoring of effluents from the stack. What kind, how they operate, where, etc.

   Response:

   The statement has been changed in Section II.D.2.j. to reflect that in-stack monitoring will be accomplished in accord with the Federal Standards of Performance for New Stationary Sources (40 C.F.R. 60.13) and applicable State of Arizona regulations. Continuous monitoring of SO_2, NO_x, O_2 and opacity is planned. However, the type of monitoring equipment to be used has not yet been determined.

4. Comment:

There is no mention of stack tesitng platforms. How high, how ports will be arranged. Specific problems that need to be overcome because of having two stacks in one liner.

Response:

The statement has been changed in Section II.D.2.j. to provide information on the current design for the stack testing system.

5. Comment:

Additional attention should be given to the fly ash dumping into haul trucks. This is a problem in similar plants. Possibly completely enclose the drop chutes to trucks and syphon off air through a baghouse.

Response:

The statement has been changed in Section I.G.12.b. to reflect that the provisions of State of Arizona regulations A.C.C.R. R9-3-301 concerning visible emissions and R9-3-302 concerning fugitive dust must be complied with. Details of the fly ash transfer, transport, and disposal operation is contained in the Department of Health Services installation/operating permit.

6. Comment:

Four and one-half miles of unpaved haul road from the limestone quarry will undoubtedly need to be paved to prevent excessive fugitive dust.

Response:

The statement has been changed in Section I.G.11,c. to reflect that the provisions of A.C.C.R. R9-3-302 and applicable Apache County rules governing the control of fugitive dust must be complied with.

7. Comment:

Coal analysis is done after the coal is burned, even though a sample is collected before burning.

It is recommended that some sort of system of feedback or analysis prior to burning should be investigated so that plant personnel can anticipate problems of excessive ash or sulfur in feed and thereby possibly prevent a strain on the air pollution control equipment.

Response:

Coal analysis is generally not considered a direct parameter for emission control because of the time necessary to collect and analyze a representative sample and to communicate and act upon the results. Coal analysis is an important indirect parameter in reducing emissions, however, through coal contract negotiations of price set points, penalties and bonuses. Very little can be done through coal analysis monitoring to prevent any possible strain on air pollution control equipment because of the high efficiencies demanded of the equipment under even normal conditions to meet required emission limits.

Remarks by the Center for Public Affairs, Arizona State University:

1. Comment:

The question rises: Why all the increase of power generation in Arizona? Is all electricity generated in Arizona now, used in Arizona? Will all electricity generated in Arizona in the near future (as projected) be consumed in Arizona? Are the summary gains for Arizona equal to the summary costs for Arizona? Will there be imbalance between the electricity supply and the water supply within the state?

Response:

The increase in power generation within the SRP service area, as explained on page I-16 of the Draft Environmental Statement, is necessary because of an anticipated increase in the population of Maricopa County. Projections by Valley National Bank indicate that by 1985 the population of Maricopa County will jump from the current population of 1,218,000 people (1976) to 1,900,000 people -- a 56% increase. By 1985 SRP expects an increase of 87.7% in residential and 67.9% in commercial and small industrial customers above the 1975 figure. The reason that SRP's growth rate is greater than the County growth rate is due to the fact that the bulk of the population growth is projected to be directed toward the suburbs, which are served by SRP.

All electricity generated in Arizona now is not used in Arizona. Exchanges of power both into and out of Arizona take place through transmission interconnections. This is true at present, and is projected to be true in the future. Projections of these exchanges are available from the Western Systems Coordinating Council (WSCC). WSCC projections are not available on a geographical basis by state, but rather by geographical subarea. The subarea of interest, WSCC subarea "C", includes the generating capacity of Arizona plus the Four Corners Plant (located in New Mexico); the Hoover Dam and Power Plant (located partially in Nevada); the Parker Dam and Power Plant (located partially in California); the Davis Dam and Power Plant (located partially

in Nevada) and thermal power plants located in the Imperial Valley of California. Subarea C is projected to export more net energy than it imports at a rate (in average MW over each year) of 988 in 1977, 879 in 1978, 775 in 1979, 671 in 1980, 538 in 1981, 737 in 1982, 742 in 1983, 828 in 1984, and 667 in 1985. From this data it is seen that the amount of export from the subarea C is projected to decline from the 1977 figure.

The summary gains for Arizona will be the benefit of having 1,050 MW of electrical generating resources which are not dependent upon foreign oil availability, within the state. The summary environmental costs for Arizona include the environmental impacts covered in Sections II.C, II.E, III.C, and III.E of the environmental statement. The study term feels that, on balance, the summary gains exceed the summary costs for Arizona.

It is not clear that any well defined balance between electricity and water supply exists. Increased uses of water are not necessarily directly coupled to increased or decreased uses of electricity. For example, when land use changes from agricultural usage to urban usage, it is possible to have a relatively small change in water use per acre simultaneously coupled with a relatively large change in electrical use per acre.

2. Comment:

A question rises: Why did the federal government do this EIS? Why is the federal government doing the EIS set for the entire new system of generation and transmission? Who is paying for the EIS? (The EIS information contains the note that the US taxpayer funded a park in St. Johns, to accommodate this project.)

Response:

Section I.A. of the final environmental statement has been expanded considerably to delineate the role the federal government has played in the development of the EIS. The federal costs incurred by the interagency study team that is preparing this statement are being absorbed by the agencies themselves.

The reference to federal funds being used for development of a park to accommodate this project cannot be substantiated. The agencies comprising the study team have not provided any funds for development of a park .

3. Comment:

What activities will be excluded by the water draw-down for the generator?

Response:

The federal study team knows of no current uses in the project area that will be excluded because of the water development to support the generation station.

4. Comment:

In general, there is more description of the plant than of the impacts. The discussion of social impacts is scant, in comparison with the extent of the document.

Response:

The discussion of the special impacts of the project has been expanded since the draft statement.

5. Comment:

There is no comment on the effects of microwaves.

Response:

The power of the average microwave transmitter used by the Salt River Project is on the order of 2 watts. With this type of equipment, the power density is so low that it is difficult to detect anywhere in front of the antenna dish. There are no known environmental effects of microwaves at these low power densities, thus no comment was made regarding them.

Remarks by the Arizona Commission of Agriculture and Horticulture:

1. Comment:

Under Arizona Revised Statutes 3-904-E any person or persons owning land in Arizona where the removal or destruction of protected native plants is to occur are required to notify the Arizona Commission of Agriculture and Horticulture ten days prior to these actions. This notification is necessary to allow the Commission to arrange the setting aside or salvaging of these plants so they are not destroyed. Enclosed is a copy of the Native plant Law for reference.

Response:

This concern is covered in the 2nd paragraph of page III-9-4. Vegetation, and under D. Mitigation and Enhancement Measures item 6. Another section has been added to D. Mitigation and Enhancement Measures - 4 Clearing which will address protected native plants listed in the Arizona Native Plant Law.

Remarks by Arizona Game & Fish Department:

This letter was originally sent separately to the Bureau of Reclamation and appears elsewhere in this appendix.

Arizona
State Land Department

1624 WEST ADAMS
PHOENIX, ARIZONA 85007
602 - 271-4634

RAUL H. CASTRO
GOVERNOR

OFFICE OF
STATE LAND COMMISSIONER

Clearinghouse # 77 ~~20~~-0004

April 4, 1977

Mr. Manuel Lopez, Jr.
Regional Director
Bureau of Reclamation
P. O. Box 427
Boulder City, Nevada 89005

Dear Mr. Lopez:

The division of natural resource conservation of the State Land Department has reviewed the draft environmental statement, CORONADO PROJECT, published by the U. S. Bureaus of Reclamation and Land Management, dated January 14, 1977.

In the process of reviewing the draft, this Department identified a situation with the railroad haul line which could be of significance to the project. The Department contacted a representative of the Salt River Project by letter and apprised him of the fact that in T17-18N, R25-26E, the railroad haulage line, might be immediately adjacent to state trust lands now under permit for prospecting (28 sections). These permits could be converted to leases, and because the mineral being sought is potash, a subsidence condition could develop in the future.

We have taken note of the fact that a minimum of approximately 70 sections could be within the boundaries of impacts created by the construction of the Coronado plant. Although we assume that all satisfactory attention will be given the state resources by the constructing party, we would like to mention a few areas of interest to us at this reading:

Fencing: this may or may not be of benefit to the lessees of the State Land Department.

Lease Stipulations: we call your attention to Page III-43, 6 (c). In reference to this paragraph, the company contracted to the stipulations and agreements of the State Land Department bears full responsibility for compliance.

Water: The long-term effect of groundwater pumping under state trust land may be a consideration for the future, and the impoundment or change-of-use of surface waters is subject to State Land Department application procedures.

This project will utilize the limestone scrubbers for flue gas desulfurization, the most efficient system known at this time. Our reading of this draft impact statement, however, did not disclose any information on the continuous monitoring of stack effluents and information on problems which might be anticipated because of double stacks in one liner.

Rights-of-way for this project will vary from 200 to 300 feet, and will be subject to considerable manipulation of soils and vegetation, and possibly to shared use with existing Land Department lessees. Cooperation from the builder in all rehabilitation projects associated with the manipulation of the trust land will be necessary to properly protect the future of the affected lands.

Thank you for furnishing this draft environmental statement to us for review. The statement has been prepared with diligence.

Sincerely,

Andrew L. Bettwy
State Land Commissioner

Peggy Spaw

By:
Peggy Spaw
Administrative Assistant

ALB:PS:fmr

cc: Robert O. Buffington, Director
Bureau of Land Management

Bruce Hronek, Supervisor
Tonto National Forest

Frank Armiento
Salt River Project

Reply to Comments by
Arizona State Land Department

Letter dated April 4, 1977

1. Comment:

In the process of reviewing the draft, this department identified a situation with the railroad haul line which could be of significance to the project. The Department contacted a representative of the Salt River Project by letter and apprised him of the fact that in T17-1SN, R25-26E, the railroad haulage line, might be immediately adjacent to state trust lands now under permit for prospecting (28 sections). These permits could be converted to leases, and because the mineral being sought is potash, a subsidence condition could develop in the future.

Response:

Salt River Project has contacted the two leaseholders and discussed the proposed railroad with them. The mining will occur approximately 1800 feet below the surface. Measures can be taken to support the ground surface and prevent subsidence.

2. Comment:

We have taken note of the fact that a minimum of approximately 70 sections could be within the boundaries of impacts created by the construction of the Coronado plant. Although we assume that all satisfactory attention will be given the state resources by the constructing party, we would like to mention a few areas of interest to us at this reading:

Fencing: this may or may not be of benefit to the lessees of the State Land Department.

Response:

Several commentors have expressed feelings on fencing of the railroad right-of-way, particularly on how it might affect antelope movement in the area. SRP has committed itself to work with the interested wildlife agencies and landowners or lessees to arrive at a fencing scheme that will be satisfactory to all parties. It has been pointed out to the fish and wildlife agencies landowners and leaseholders on private and State land will have the final say on what type of fencing will be selected.

3. Comment:

Lease Stipulations: we call your attention to Page III-43, 6(c). In reference to this paragraph, the company contracted to the stipulations and agreements of the State Land Department bears full responsibility for compliance.

Response:

The comment has been noted and incorporated into Section III.D.6.c.

4. Comment:

Water: The long-term effect of groundwater pumping under state trust land may be a consideration for the future, and the impoundment or change-of-use of surface waters is subject to State Land Department application procedures.

Response:

The effects on groundwater and surface water are discussed in Section II.C.3.g.

5. Comment:

This project will utilize the limestone scrubbers for flue gas desulfurization, the most efficient system known at this time. Our reading of this draft impact statement, however, did not disclose any information on the continuous monitoring of stack effluents and information on problems which might be anticipated because of double stacks in one liner.

Response:

Section II.D.2.j has been revised to discuss the monitoring requirements in more detail.

6. Comment:

Rights-of-way for this project will vary from 200 to 300 feet, and will be subject to considerable manipulation of soils and vegetation, and possibly to shared use with existing Land Department lessees. Cooperation from the builder in all rehabilitation projects associated with the manipulation of the trust land will be necessary to properly protect the future of the affected lands.

Response:

Salt River Project will comply will all stipulations contained in rights-of-way agreements to cross State lands, Section III.D.6.a. further addresses these concerns.

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL ELECTRIFICATION ADMINISTRATION
WASHINGTON, D.C. 20250

APR 12 1977

Honorable R. Keith Higginson, Commissioner
Bureau of Reclamation
U. S. Department of the Interior
Washington, D. C. 20240

Dear Mr. Higginson:

We have reviewed the Draft Environmental Statement (DES) for the Coronado Project and find it overall to be a thorough, well-written document. However, we believe that the land management agencies involved in issuing right-of-way permits will have a difficult time maintaining their objectivity in light of the 30 miles of transmission line construction that has already taken place in Apache County. Apparently these agencies voiced the same opinion (see letter from USBR Regional Director Lopez to SRP General Manager Pfister, Appendix K-2 of DES). This conflicts with the statement made in the last paragraph of page III-1: "The construction activity will not influence or preclude the choice of any alternative primary or 'backup' transmission line alternatives available to the Federal land management agencies."

Other comments on specific statements made in the DES are enclosed. Please send this office one copy of the Final Environmental Statement when it is available.

Sincerely,

RICHARD F. RICHTER
Assistant Administrator - Electric

Enclosure

Comments on Coronado Project DES

The following are conflicting statements made in the DES:

pg. I-22 - It is stated that an SO_2 removal system will be installed if necessary. Discussions of the SO_2 removal system found elsewhere in the DES state that such a system will indeed be installed.

pg. I-43 - It states that lime and limestone are being evaluated as reagents for the SO_2 scrubbing system. Other statements made in the DES state that limestone will be utilized.

pg. I-45 - It is stated that a construction schedule for Unit 2 has not been developed. On page I-1 it states that Unit 2 is scheduled for completion in 1980.

Other Comments:

pg. I-27 - Water Management System - Design Plan. "Studies will be made during the pre-construction phase of the design...." Since construction has already begun, greater discussion of this Design Plan should be available and presented.

pg. I-46 - This page is out of sequence.

pg. I-52 - "The Water Management Plan is designed to react in the event adverse water level drawdown (actual drawdown exceeding projected drawdown by more than 50%) should occur." This plan should be discussed in some detail.

pg. II-137 - "Based on incomplete studies at the Navajo Generating Station, trace element emission from coal-fired power plants, especially from those with highly efficient fly ash control systems, is not a problem at the Navajo Station and is not expected to be a problem at the Coronado Station."

Unless the chemical analyses of the coals burned at these two stations are similar, this statement cannot be made. In addition, some trace elements, such as mercury, volatilize and thus, would pass through unaffected by the fly ash control system.

pg. II-143 - It states that the water pipeline from the Middle Wellfield and the 500 kV transmission line will pass along the south edge of a prairie dog colony. The Arizona Game and Fish Department should examine the area for the presence of black-footed ferrets before destroying any of the burrows.

pg. II-155 - It states that "...the people are largely in favor of the plant..." Was a survey or opinion poll taken that would indicate this?

pg. II-179-180 - Mitigating measures affecting land use, scenic resources, and acoustics should be discussed in a manner such that the reader knows that they "will" be implemented, rather than "can" be implemented as is indicated.

pg. III-1 - It states that the environmental impacts of the Eastern Mining Area (EMA) proposal will be discussed in the Final Environmental Statement (FES). It is recommended that construction on the EMA transmission proposal not commence until comments on the FES have been received.

pg. III-41 - Will an overall transmission system plan be prepared? This should be a required mitigative measure.

In addition, there is no discussion of the impact, if any, of the Coronado Project on prime and unique farmland.

Reply to Comments by
Rural Electrification Administration
Department of Agriculture

Letter dated April 12, 1977

1. Comment:

We have reviewed the Draft Environmental States (DES) for the Coronado Project and find it overall to be a thorough, well-written document. However, we believe that the land management agencies involved in issuing right-of-way permits will have a difficult time maintaining their objectivity in light of the 30 miles of transmission line construction that has already taken place in Apache County. Apparently these agencies voiced the same opinion (see letter from USBR Regional Director Lopez to SRP General Manager Pfister, Appendix K-2 of DES). This conflicts with the statement made in the last paragraph of page III-1: "The construction activity will not influence or preclude the choice of any alternative primary or 'backup' transmission line alternatives available to the Federal land management agencies."

Response:

Several other commentors have raised this same issue and Section I.A has been revised to show the time frame in which federal agencies became involved in the project planning process. The federal study team preparing this environmental statement would have preferred that construction of the transmission systems not begin until the statement had been filed with the Council on Environmental Quality. However, the team, or other members of the represented agencies, were not consulted prior to beginning of construction because no federal approvals were needed. Obviously the action by SRP precluded certain alternatives that were described in the EIS. Yet, it is the contention of the federal study team that the action did not foreclose any alternate arrangements that were available to the federal land management agencies in the first place. In effect, since these agencies do not have the authority to demand SRP select a given route on private lands then the alternative, although technically feasible, did not actually exist for the study team.

2. Comment:

Pg. I-22 - It is stated that an SO_2 removal system will be installed if necessary. Discussions of the SO_2 removal system found elsewhere in the DES state that such a system will indeed be installed.

Response:

The statement has been revised to show that the SO_2 removal system will be installed.

3. Comment:

Pg. I-43 - It states that lime and limestone are being evaluated as reagents for the SO_2 scrubbing system. Other statements made in the DES state that limestone will be utilized.

Response:

The statement has been corrected to show that limestone will be the reagent used in the SO_2 scrubbing process.

4. Comment:

Pg. I-45 - It is stated that a construction schedule for Unit 2 has not been developed. On page I-1 it states that Unit 2 is scheduled for completion in 1980.

Response:

The statement has been corrected to show that Unit 2 is scheduled for completion in 1980.

5. Comment:

Pg. I-27 - Water Management System - Design Plan. "Studies will be made during the pre-construction phase of the design ..." Since construction has already begun, greater discussion of this Design Plan should be available and presented.

Response:

On a project of this nature the design of specific elements or features of the whole unit continues and changes as work proceeds and more information becomes available. The information contained in this final environmental statement represents the best information available at the time of its publishing.

6. Comments:

Pg. I-46 - This page is out of sequence.

Response:

This page has been corrected.

7. Comment:

Pg. I-52 - "The Water Management Plan is designed to react in the event adverse water level drawdown (actual drawdown exceeding projected drawdown by more than 50%) should occur." This plan should be discussed in some detail.

Response:

Section I.D.2.j.(2) of the DES has been expanded to discuss the Water Management Plan in more detail.

8. Comment:

Pg. II-137 - "Based on incomplete studies at the Navajo Generating Station, trace element emission from coal-fired power plants, especially from those with highly efficient fly ash control systems, is not a problem at the Navajo Station and is not expected to be a problem at the Coronado Station."

Unless the chemical analyses of the coals burned at these two stations are similar, this statement cannot be made. In addition, some trace elements, such as mercury, volatilize and thus, would pass through unaffected by the fly ash control system.

Response:

The REA's point is well taken and the paragraph has been revised to reflect the qualification of having similar coal.

9. Comment:

Pg. II-143 - It states that the water pipeline from the Middle Wellfield and the 500 kV transmission line will pass along the south edge of a prairie dog colony. The Arizona Game and Fish Department should examine the area for the presence of black-footed ferrets before destroying any of the burrows.

Response:

Sections II.B-1.3.c, II.B-2.2.d and II.B.6.(b) discussed the endangered species that might be included in the project area. It further stated that the black-footed ferret had not been sighted in the area since the 1920's. Construction has already begun on this portion of the transmission line as described in Section III.A. Also the water lines through the area are also under construction in each case, there have been no reported sightings of black-footed ferrets.

10. Comment:

Pg. II-155 - It states that "...the people are largely in favor of the plant..." Was a survey or opinion poll taken that would indicate this?

Response:

The federal study team was advised of two such studies that were performed when Mr. Hal Anderson mentioned them in his testimony at the St. Johns, Arizona public hearing. These are the only known polls taken in the St. Johns area.

11. Comment:

Pg. II-179-180 - Mitigating measures affecting land use, scenic resources and acoustics should be discussed in a manner such that the reader knows that they "will" be implemented, rather than "can" be implemented as is indicated.

Response:

Section II.D has been modified to show which mitigation measures "will" be implemented. However, some mitigation measures are voluntary on the part of SRP as they are not required by law or regulation.

12. Comment:

Pg. III-1 - It states that the environmental impacts of the Eastern Mining Area (EMA) proposal will be discussed in the Final Environmental Statement (FES). It is recommended that construction on the EMA transmission proposal not commence until comments on the FES have been received.

Response:

The federal land management agencies will not take any action on granting rights-of-way for transmission facilities in the EMA area until after a 30-day comment period on the final statement has closed. The SRP does not plan to begin construction of the EMA immediately. SRP will have to take its proposals to the State of Arizona Power Plant and Transmission Line Siting Committee for approval and will probably not start construction of these facilities until early 1978, pending that approval.

13. Comment:

Pg. III-41 - Will an overall transmission system plan be prepared? This should be a required mitigative measure.

Response:

This comment apparently refers to the overall transportation plan mentioned on page III-41 of the draft statement. A transportation plan will be prepared as required by Federal agencies on land under their jurisdiction. Salt River Project will prepare its own plan for construction on private and state land.

14. Comment:

In addition, there is no discussion of the impact, if any, of the Coronado Project on prime and unique farmland.

Response:

A brief discussion of prime farm land follows: prime farm land is land best suited for producing food, meat, forage, fiber and oil seed crops and also available for these uses (the land can be crop land, pasture land, range land, forest land or other land but not urban built-up land or water). It has the soil quality, growing season, and moisture supply to produce sustained high yield of crops economically when treated and managed, including water management, according to modern farming methods. Unique farm land is land other than prime farm land that is used for production of specific high yield food and fiber crops. It has a special combination of soil quality, location, growing season and moisture supply needed to produce sustained high quality and/or high yield of a specific crop when treated and managed according to modern farming methods. Examples of such crops are: citrus, olive, cranberry, fruit and vegetable.

An estimated 4,173 square feet (0.096 acres) of prime and/or unique farm lands will be removed from production along the 500 kV links 34 and 35.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
100 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

Project No. D-IBR-K07002-AZ

MAY 31 1978

Manuel Lopez, Jr.
Regional Director
Bureau of Reclamation
Boulder City, Nevada 89005

Dear Mr. Lopez:

The Environmental Protection Agency has received and reviewed the Draft Environmental Impact Statement for the Coronado Project, Arizona.

EPA's comments on the Draft Environmental Impact Statement have been classified as Category LO-1. Definitions of the categories are provided on the enclosure. The classification and the date of EPA's comments will be published in the Federal Register in accordance with our responsibility to inform the public of our views on proposed Federal actions under Section 309 of the Clean Air Act. Our procedure is to categorize our comments on both the environmental consequences of the proposed action and the adequacy of the environmental statement.

EPA suggests the Bureau take into consideration the following comments when preparing the final statement.

EPA found the maximum 24 hour SO_2 concentrations of 351 ug/m^3 at 0.8 km with stability A, wind speed 2.5 m/s using the EPA Valley model. EPA disagrees with Coronado's reply stating that looping conditions are unimportant. The quote from the Workbook of Atmospheric Dispersion Estimates in support of Coronado's position actually refers to only "instantaneous" concentrations.

EPA disagrees with Coronado's rationale for eliminating surface plume reflection when higher terrain approaches the plume center line. The cliffside situation supporting this interpretation is inappropriate because the terrain around the proposed power plant slopes rather gently.

In EPA's previous comments submitted to you we stated that the highest annual predicted SO_2 concentration was found to be 30 ug/m^3. This is in error, because the proper wind speeds corresponding to the available meteorological data were not used. Making this correction causes the annual concentration to increase considerably: to 61 ug/m^3.

789-513

It is likely that the concentrations are close to the standards (NAAQS) and that it is doubtful other sources could locate in the vicinity without creating violations. However, since the concentrations are model estimates, verification should be made with monitors after the plant is in operation.

EPA appreciates the opportunity to comment on this Draft Environmental Impact Statement and requests two copies of the Final Environmental Statement when available. We thank the Bureau for their cooperation on this project, particularly in light of the fact that project construction was already underway as the DEIS was being prepared.

If you have any questions regarding our comments, please contact Patricia Sanderson Port, EIS Coordinator, at (415)556-6266.

Sincerely,

David L. Calkins

for Paul De Falco, Jr.
Regional Administrator

Enclosure

cc: Council on Environmental Quality

cc: Mr. Al Colton, Supervisor
Environmental Division
Salt River Project
P.O. Box 1981
Phoenix, Arizona 85001

EIS CATEGORY CODES

Environmental Impact of the Action

LO--Lack of Objections

EPA has no objection to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER--Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

EU--Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

Adequacy of the Impact Statement

Category 1--Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2--Insufficient Information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3--Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement.

If a draft impact statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.

Reply to Comments by
Environmental Protection Agency

Letter dated May 26, 1977

1. Comment:

EPA found the maximum 24 hours SO_2 concentration of 351 ug/m^3 at 0.8 Km with stability A, wind speed 2.5 m/s using the EPA Valley model.

Response:

From our previous discussions with EPA we understand that the EPA calculations were based on averaged meteorological data available from the nearby National Weather Service station rather than the broader range of site specific data that was used in the calculations for the E.S. For this reason, we believe the calculations in the ES are more definitive while those of EPA represent a wider approximation. Also, as we understand the EPA calculations, "worst case" meteorological conditions were used with a minimum of consideration for the combined frequency of occurrence and duration of these "worst case" circumstances under site specific conditions. Because modeling results are estimates only, ambient SO_2 monitoring is planned for SRP at approximately 0.8 Km from the plant so as to verify results.

2. Comment:

EPA disagrees with Coronado's reply stating that looping conditions are unimportant. The quote from the Workbook of Atmospheric Dispersion Estimates in support of Coronado's position actually refers to only "instantaneous" concentrations.

Response:

It was not the intent of previous discussions with EPA to imply that looping conditions are unimportant. We are of the opinion that looping conditions are relatively unimportant when applicable 3-Hr and 24-Hr average surface concentrations are considered. The highly variable vertical motions, wind speed and wind direction associated with a stability "A" atmosphere combine so that only very short duration, near instantaneous, ground concentrations are experienced. When these short bursts are averaged over a 3-Hr or 24-Hr duration, they are relatively unimportant when compared to other meteorological circumstances. (For a more detailed discussion on this thesis, the reader is referred to the Workbook on meteorological conditions associated with maximum ground level concentrations.)

3. Comment:

EPA disagrees with Coronado's rationale for eliminating surface plume reflection when higher terrain approaches the plume center line. The cliffside situation supporting this interpretation is inappropriate because the terrain around the proposed power plant slopes rather gently.

Response:

It was our determination that the terrain 20 Km SSE of the Station where the highest 3-Hr and 24-Hr average concentrations are expected to occur should be characterized as "complex" rather than "gently sloping". Under these conditions we have assumed that over such terrain that ground concentrations should not exceed plume centerline concentration. We believe the assumption is conservative and appropriately fits the terrain.

4. Comment:

In EPA's previous comments submitted to you we stated that the highest annual predicted SO_2 concentration was found to be 30 ug/m^3. This is in error, because the proper wind speeds corresponding to the available meteorological data were not used. Making this correction causes the annual concentration to increase considerably: to 61 ug/m^3.

Response:

As discussed previously, we understand that the EPA calculations were based on averaged meteorological data available from the nearby National Weather Service station rather than the broader range of site specific data that was used in the calculations for the E.S. For this reason, we believe the calculations in the E.S. are more definitive while those of EPA represent a wider approximation.

Further, the 61 ug/m^3 appears high when compared to ambient average concentrations measured in the vicinity of existing generating stations with comparable or greater emission rates as shown in the State of Arizona publication Air Quality Data for Arizona. In 1975, for instance, the annual average at Page, Arizona, in the vicinity of the Navajo Generating Station was 7 ug/m^3, at Joseph City in the vicinity of the Cholla Generating Station, it was 2 ug/m^3, and at Bullhead City in the vicinity of the Mojave Generating Station, the annual average as 13 ug/m^3.

5. Comment:

It is likely that the concentrations are close to the standards (NAAQS) and that it is doubtful other sources could locate in the vicinity without creating violations. However, since the concentrations are model estimates, verification should be made with monitors after the plant is in operation.

Response:

We consider both the concentration estimates found in the E.S. and those provided by the EPA as conservative estimates. For that reason, we believe that the concentrations experienced during actual operations will not be so close to the NAAQS as to prevent location of some additional sources in the area. We agree that since the concentrations are model estimates, verification should be made with monitors after the plant is in operation.

APPENDIX M

SUMMARY
OF
COMMENTS AND REPLIES

presented orally or in writing for inclusion in the official proceedings of the February 23, 1977, public hearing on the Coronado Project Draft Environmental Statement at St. Johns, Arizona.

Replies to Comments at the Public Hearings
St. Johns, Arizona
February 23, 1977

Mr. Tom Biggs, Manager, Valley Bank, St. Johns, Arizona

1. Comment:

Mr. Biggs expressed support for the project based on economic reasons. The project has increased employment, hence families are retaining children who before would have sought employment elsewhere. The project has caused the expansion of medical and dental services, has retained money in the community and has diversified the basic economy from one of agriculture to now include industry.

Response:

These comments do not require additional discussion.

Mr. A. J. Pfister, General Manager, Salt River Project, Phoenix, Arizona

1. Comment:

Mr. Pfister indicated that the Coronado Project meets the Company's dual responsibilities of providing electricity while protecting the environment. He also discussed the alternatives of the excess generating capacity of the plant caused by the slowdown in customer growth because of the recent economic recession. These alternatives include a one-year delay of the first two units at Coronado, a short-term sale of from 200 to 400 megawatts, a disposition of ownership interest on a recapturable or permanent basis, or some combination of these alternatives.

Response:

Section 1.f has been expanded to include a discussion of the options open to the Salt River Project for disposing of excess electric power.

2. Comment:

Mr. Pfister commented on the beginning of transmission line construction along links 04 and 06. His statement indicated that the critical path for the transmission line required a 500-kV transmission line be in operation by July 31, 1978. Therefore, the company decided to proceed with the first phase of transmission line construction on non-federal land.

He further stated that in his opinion, "This activity will not affect decisions which must be made by Federal agencies with regard to the Coronado Project. We find no conflict between it and the requirements of the National Environmental Policy Act. It is essential to note in this regard that Salt River Project (SRP) initiated studies to provide additional generating facilities in 1973, four years ago, to meet our projected needs in the late 1970's."

Response:

The Federal study team disagrees with this statement and with Mr. Pfister's analysis. The matter of SRP's beginning construction of the 500-kV transmission system was discussed in Sections I.A and III.A of the Draft Environmental Statement. The Forest Service made its position known on this matter in a letter dated January 12, 1977, to the Regional Director of the Bureau of Reclamation (See appendix K of the FES). Briefly, the interagency team's position is that SRP's transmission line construction:

1. Precluded the opportunity for the public or any government agency to comment on this portion of the transmission line before construction began or any alternative to either the main transmission line proposal or the "backup" interconnection, thereby appearing to circumvent the purpose of the National Environmental Policy Act of 1969.

2. This action eliminated the Tucson Gas and Electric Company alternative "backup" interconnection as described in Section III.H.4.c.

The federal study team recognizes that the transmission line construction was started on private and State lands for which SRP had obtained rights-of-way. Furthermore the team recognizes that the agencies it represents do not have the statutory authority to prevent SRP from construction its facilities on private holdings.

However, it is the belief of the study team that under the mandates of the National Environmental Policy Act of 1969 it has the right to, and in fact the obligation to, make an objective analysis, under procedures adopted by the agencies as well as the general public before a recommendation is made on an environmentally preferred route.

When the SRP began construction of the primary and back-up transmission systems before issuance of the draft environmental statement it prevented an objective analysis of the Tucson Gas and Electric back-up system described in the draft. The study team is aware of the constraints on that alternate with respect to in service dates and described the same in the draft statement. However, since the proposed back-up system to the Cholla power plant does require right-of-way across lands administered by the Bureau of Land Management the team believes

it would have been in the best interest of itself, SRP and all others concerned, had construction not started prematurely.

The federal team is still studying the alternatives available to it and does not feel committed to any one proposed route. Rather, it will continue to make an objective analysis of the alternates available and will select its suggested environmentally preferred route accordingly.

The study team is aware of the studies that SRP has made over the last four years in support of the Coronado Project. Much of the data collected was invaluable in the preparation of the draft environmental statement. However, it should be pointed out that it was not until late 1974 that the SRP requested the Department of the Interior to consider the proposed actions and it was not until February 1975 that the study team was formed. As pointed out in the draft statement the State of Arizona approved the proposed transmission line alignment on November 12, 1974.

The above statements are not presented as conclusions of law, but are presented as the Federal agencies opinion on the actions taken by Salt River Project. The Federal study team feels that in order to preserve the integrity of the Coronado Environmental Statement that a full disclosure of the facts should be made.

3. Comment:

Mr. Pfister stated that arrangements have been made to provide coal for the plant through 1984.

Response:

Section I.K has been revised to reflect the latest situation concerning a fuel supply for the Coronado Generation Station.

4. Comments:

Mr. Pfister stated that it is premature to speculate what impacts the Coronado Project will have on the recently announced plans of Tucson Gas and Electric Company to construct a coal-fired electric generating station near Springerville, Arizona in the mid-to-late 1980's.

Response:

A discussion of the Springerville plant has been added to Section I.E.2. However, we know nothing at this time about Tucson Gas and Electric Company's plans to construct a coal-fired electric plant and, therefore, did not address it in this statement.

Mr. Jack Brown, representing himself, St. Johns, Arizona

1. Comment:

Mr. Brown stated that the reports were difficult to obtain in St. Johns and should have been more available.

Response:

The Coronado statement was given a fairly wide distribution. We sent copies of the statement to the local governmental agencies, the Chamber of Commerce, and the local media. Since it was impossible to send a copy of the statement to everyone in the affected area, we tried to publicize the availability of the statement by sending it to the local media. Therefore, people who were interested in the statement could have requested their own copy.

We regret the difficulty some of the citizens in St. John's had in obtaining a copy of the Coronado statement. In retrospect, the statement probably should have been given a wider distribution within St. Johns. We were unaware, for example, that St. Johns had a library or we certainly would have sent a copy there.

We are pleased that the citizens of St. Johns have made us aware of this problem. We will keep this in mind for future statements to insure that all interested parties have easy access to an environmental statement.

2. Comment:

Mr. Brown expressed doubt that the bobcat and grey fox are more common than antelope as indicated in the statement.

Response:

The statement that bobcat and grey fox are more common than antelope was derived from an environmental evaluation of the St. Johns area performed by Dames and Moore in 1973-1974. Dames and Moore concluded that the bobcat and grey fox are more common than the antelope.

3. Comment:

Mr. Brown, who is a cattleman, takes exception to the statement that overgrazing occurs in the area.

Response:

Dames and Moore, in their environmental assessment of the St. Johns area, contended that one of the reasons for the change in plant composition in the St. Johns area was overgrazing.

4. Comment:

Mr. Brown expressed concern about the emissions of particulate matter and other items from the smokestacks, but feels Salt River Project will effectively deal with the problem.

Response:

The Coronado plant is designed with the latest technology to reduce hazardous emissions. The emissions from the plant will meet all applicable state and Federal standards and, therefore, should be considered safe. The plant emissions are discussed in Section II.C.3.

Mr. Robert Farr, Kiwanis Club, St. Johns, Arizona

1. Comment:

Mr. Farr expressed concern for the existing clean air and healthy environment for man, animal, fowl, and plant life in the area. He further stated that after researching the nearby Cholla powerplant operation, he felt that the Coronado Project would not be detrimental to St. Johns environment and would certainly be helpful in retaining the youth of the area by providing local employment. He speculated about the commercial use of by-products of the plant, especially lime to neutralize alkaline soil.

Response:

The Coronado Generating Project will furnish jobs in the St. Johns area. Construction activities, for instance, will furnish anywhere from 1,628 to 1,835 jobs. Operating and maintaining the plant after it is constructed will furnish 325 jobs. The influx of these construction workers and operation and maintenance personnel will create additional jobs in the St. Johns area. It is estimated that the project alone will create 228 additional jobs in the St. Johns area. A growing population and an expanding economy may create even more jobs.

There are no guarantees that these jobs will be filled by the young people of the St. Johns area. Many of these jobs will undoubtedly be filled by workers coming in from outside the area. Other jobs will require skills probably not available at this time in the St. Johns area. However, it is safe to assume that some of these jobs will be available to and filled by the young people of the St. Johns area.

As far as the commercial use of plant by-products, SRP does plan to sell the flyash if a market develops for it. The final by-products of the scrubber system have not been determined at this time; however, lime will not be one of these by-products. Gypsum could be a by-product of the scrubber system and may have commercial uses.

Mr. Eric Broadbent, St. Johns Chamber of Commerce, St. Johns, Arizona

1. Comment:

Mr. Broadbent supported the Coronado Project because of the increased trade for the community, for which reason it was supported by the Chamber of Commerce.

Response:

No response is needed to this statement.

2. Comment:

Mr. Broadbent reiterated concern for maintaining an environment in which children of the community could grow up and in turn rear their children. He does not favor any industry which will appreciably alter the present environment, but he feels after reading the statement that the project will have no detrimental effects on the area.

Response:

As mentioned before, the Coronado Project is designed to meet all applicable State and Federal emission standards. The changes that will occur in the environment are discussed in Section II.C.

3. Comment:

Mr. Broadbent also experienced difficulty in locating a copy of the draft statement.

Response:

The response to this comment is the same as the response to comment No. 1 under Jack Brown.

4. Comment:

Mr. Broadbent, representing the Chamber of Commerce, submitted a statement supporting the construction of the Coronado Generating Station, its accompanying transmission lines and spurs, the limestone lining, and the rail lines.

Response:

This comment needs no response.

Mr. Harbon Heap, representing himself, St. Johns, Arizona

1. Comment:

Mr. Heap believes that the area's youth will not leave to find employment with the advent of the Coronado Powerplant. He welcomes the economic growth and feels that Salt River Project has gone the extra mile to retain the present environment. Mr. Heap also feels that the rapport between the community and Salt River Project is good, and particularly commended Mr. Paul Weimann, Right-of-Way Agent, for being an Ambassador of Good Will.

Response:

This comment needs no response.

Mr. Arlo Lee, Apache County Assessor, St. Johns, Arizona

1. Comment:

Mr. Lee endorsed the Coronado Project; he briefly described the events which preceded the decision to build the plant in St. Johns. He was happy to see the population rise and he was pleased that the town's youth would no longer have to leave the area to find jobs. He was also pleased with the Salt River Project's actions to improve the community.

Response:

The Salt River Project has expended considerable effort in trying to assure a smooth transition from the no growth situation prevailing prior to the project to the growh situation prevailing today. It is estimated that the population of St. Johns will double as a result of the Coronado Generating Station being built closeby.

Mr. Leonard Isaacson, County Agricultural Extention Agent for Apache County

1. Comment:

Mr. Isaacson mentioned that the statement does not adequately address the project's impact on local irrigation wells. He stated that on page I-51, the possibility of the wells going dry was mentioned, but no alternate sources of water were located. Further, he refers to page 152 which states the Water Management Plan is designed to react when the actual drawdown exceeds projected drawdown by more than 50 percent. The statement then indicates that Salt River Project will consider a number of alternatives, including development of an additional wellfield to alleviate the problem. Mr. Isaacson wondered what would be the reaction of SRP if the same problem reoccurred in the irrigation wells in the new area?

Response:

The first alternate source of water would be a wellfield located adjacent to the east and south sides of the plant site.

If the same situation reoccurred in the new wellfield, that is the actual drawdown exceeded the projected drawdown by 50 percent, the Salt River Project would consider alternate plans to include the development of additional wellfields.

The best data presently available indicates that this problem will simply not occur. According to Harshbarger and Associates, the SRP wellfields could yield up to 250,000 acre feet of water, which is quite a bit more than the 15,000 acre feet needed for the Coronado Project. Harshbarger and Associates concluded that the Kaibab-Coconino aquifer, which underlies the SRP wellfields, is large enough to support the Coronado Project without effecting other water users or the natural environment. Well yields of 1,000 to 1,800 gallons per minute are common in the area and have not resulted in a large water level decline.

Mr. Dan E. Heap, Superintendent, St. Johns School District Number One

1. Comment:

Mr. Heap, speaking as the Superintendent of Schools, mentioned some of the problems that an increased population has created for the school system, such as a need for additional classrooms and teachers. He added, however, that most of the problems have been solved and that the local citizens felt that the people brought in by the project were a credit to the community. He supported the project and felt sure the town could cope with any other problems arising from the growing population caused by the project.

Response:

No response to this comment is needed.

Mr. Hal Anderson, representing himself, St. Johns, Arizona

1. Comment:

Mr. Anderson, city councilman and local pharmacist, discussed the decrease in population before the Coronado Project and the town's efforts to attract industry to the area. He also mentioned population surveys which showed the local population favored expanding medical facilities and introduction of industry into the area. Mr. Anderson added that he was glad to see the job-seeking youth finding employment in the community.

Response:

No response is necessary to this comment.

Mr. Theron Hall, Apache Title Company, St. Johns, Arizona

1. Comment:

Mr. Hall endorsed local support by relating some of the positive impacts of the Coronado Project being in the area. He mentioned the additional real estate construction, new businesses, and professional assistance from the medical and legal fields. He was happy to see the project being built in St. Johns.

Response:

Mr. Hall's comments require no reply.

Ms. Marjorie Pointer, representing herself, St. Johns, Arizona

1. Comment:

Ms. Pointer, a professional home demonstration agent, reiterated the improvements in the areas quality of life such as the community's increased civic interest and public support since the Coronado Project was begun. She stated that although problems had surfaced because of the growing and changing population, these problems were being resolved. She welcomed Coronado Project people to the area and praised their leadership in the community.

Response:

This comment of support does not require a response.

Mr. Keith Shreeve, representing himself, St. Johns, Arizona

1. Comment:

Mr. Shreeve, a private consulting engineer, stated that the local population has for sometime been interested in bringing in an industry that would cause the area to develop and grow. He is glad to see the construction of the powerplant and the financial support and development that it is bringing with it.

Response:

Mr. Shreeve's comment of support does not require a response.

Mr. John Crosby, representing himself, St. Johns, Arizona

1. Comment:

Mr. Crosby extemporaneously expressed his support for the Coronado Project Powerplant construction and operation in the St. Johns, Arizona, area.

Response:

This comment of support does not require a response.

APPENDIX N

SUMMARY
OF
COMMENTS AND REPLIES

presented orally or in writing for inclusion in the official proceedings of the February 24, 1977, public hearing on the Coronado Project Draft Environmental Statement at Kearny, Arizona.

Replies to Comments on Public Hearings
Kearny, Arizona
February 24, 1977

Alfred Q. Colton, Supervisor, Environmental Division, representing A. J. Pfister, Salt River Project, Phoenix, Arizona

1. Comment:

Mr. Colton reiterated Mr. Pfister's statement at St. Johns by explaining Salt River Project's dual responsibilities of providing electrical power while preserving the environment. Mr. Colton further explained that the Coronado Project is one of the most carefully studied projects of its kind in the southwest. It will provide a new source of energy and will be environmentally compatible with the surrounding area. It will also meet the projected needs of the Hayden mining area and improve the areas economy.

Response:

Mr. Colton's comments do not require a response.

Mr. J. H. Maize, President, Kearny Chamber of Commerce, Kearny, Arizona

1. Comment:

Mr. Maize stated that the Kearny Chamber of Commerce is aware of possible growth of the mining industry in the area and recognizes the need for electrical energy to support this growth. This growth will help Kearny grow and prosper.

Response:

Mr. Maize's comment does not require a response.

2. Comment:

The Kearny Chamber of Commerce believes the construction of the Silver King to Hayden leg of the Coronado Project transmission system should be undertaken at the earliest possible time in order to cope with rising costs. Further, the membership in an open meeting on February 22, 1977, voted to recommend the Silver King to Hayden transmission line be routed according to the alternative indicated in Figure I-22 as Link H and not Link I which would follow the present Salt River right-of-way between the shopping center and State route 177.

Response:

The study team has considered this input in preparing the final statement.

3. Comment:

Mr. Maize also introduced a resolution approved by the Pinal County Development Board on February 17, 1977, supporting the Coronado Project and urging that it be completed and placed in service as soon as possible.

Response:

The introduction of this resolution does not require a response.

Mr. Kenneth H. Matheson, Jr., General Manager of the Ray Mines Division, Kennecott Copper Corporation

1 Comment:

Mr. Matheson explained the present and projected operation of the Ray Mines Division. He said the Division is dependent on the Salt River Project for most of the electrical energy needed for expansion. This energy will be available only if the transmission line from Silver King Substation to Hayden is completed. Therefore, Kennecott strongly supports the Coronado Project, will give the necessary rights-of-way to Salt River Project and encourages all involved Federal and State agencies to issue the remaining permits needed to quickly complete the project.

Response:

This statement of support for the Coronado Project requires no response.

Mr. Larry Lehman, Town Manager, Kearny, Arizona

1. Comment:

Mr. Lehman wished to go on the record as supporting the transmission line alternative H, as proposed by the local Chamber of Commerce.

Response:

The study team has considered this input in preparing the final statement.

APPENDIX P

SUMMARY
OF
COMMENTS AND REPLIES

presented orally or in writing for inclusion in the official proceedings of the February 25, 1977, public hearing on the Coronado Project Draft Environmental Statement at Phoenix, Arizona.

Replies to Comments made at Public Hearings
Phoenix, Arizona
February 25, 1977

Mr. Alfred Q. Colton, Supervisor, Environment Division, representing A. J. Pfister, General Manager, Salt River Project, Phoenix, Arizona

1. Comment:

Mr. Colton presented a written statement for the record. He then read a copy of that statement which described the comprehensive study and planning efforts that went into the Coronado Project. This effort was aimed at fulfilling SRP's dual responsibilities of providing electricity for a growing Phoenix metropolitan area and for the mining areas east of Phoenix while safeguarding the environment. Mr. Colton also stated that the generating station will burn coal instead of oil or natural gas which will help achieve the goal of energy independence while keeping electricity costs at a minimum. Mr. Colton closed by commending the Federal agencies represented on the Interagency Study Team, the Bureau of Reclamation, the Forest, Service, and the Bureau of Land Management.

Response:

This statement requires no response.